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(UNIVERSITY OF LIVERPOOL)

ANNALS
OF
ARCHAEOLOGY
AND
ANTHROPOLOGY



ISSUED BY THE
INSTITUTE OF ARCHAEOLOGY

EDITED BY
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THE PREHISTORIC POTTERY FOUND IN THE HYPOGEUM AT HAL-SAFLIENI, CASAL PAULA, MALTA

By N. TAGLIAFERRO, I.S.O.

LATE DIRECTOR OF EDUCATION, AND MEMBER OF THE COMMITTEE
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WITH PLATES I-XVII

INTRODUCTION

Dr. Albert Mayr, in his valuable work *Die vorgeschichtliche Denkmäler von Malta*, Munich, 1901,* expresses a regret that no particulars of the numerous fragments of pottery found in or about the megalithic monuments of the Maltese Islands have been made public. The excavations at Hagiar Kim brought to light a great number of fragments (*Archeologia* XXIX, p. 229). Mr. (afterwards Sir) Charles T. Newton, in his *Travels and Discoveries in the Levant* (Vol. I, p. 6), states that during his stay in Malta in 1852 he despatched two cart-loads of fragments of pottery from Hagiar Kim and Mnajdra to the Museum of Malta, and adds that he sent some specimens of that pottery to the British Museum.†

What became of the cart-loads will never be known. No fragments of pottery, either from Hagiar Kim or Mnajdra, were ever exhibited in the Malta Museum between 1852 and 1902. It was only in the latter year, during the removal of the Museum to the new premises opposite St. John's Church, that two baskets full of fragments of pottery, found in a lumber room at the Public Library, were identified by the caretaker at Hagiar Kim as belonging to that prehistoric monument. Those fragments are now exhibited in the Valletta Museum, together with the other objects found at Hagiar Kim. More potsherds found therein lately by Professor Them. Zammit, M.D., Curator of the Museum, have been added to the collection, and a classification of all the fragments is

* An English translation of this work, with several additions, was made by Her Granducal Highness the Princess Louis of Battenberg and printed in Malta in 1908 for private circulation under the title *Prehistoric Remains of Malta*.

† I did not succeed in finding any trace of those specimens at the British Museum. No record exists that they ever reached the Museum.

at present being made; but so far, no systematic description of them has been published.

Descriptions of whole vases purporting to have been found in or about the megalithic monuments have been given by the late Dr. A. A. Caruana in his *Megalithic Antiquities of Hagiar Kim*, p. 4; by La Marmora in his *Temple du Gozo*; by Dr. Albert Mayr in the work quoted above; by Mr. J. L. Myres, *Prehistoric Pottery in the Valletta Museum*, in *Man*, 1901, p. 71; and by Dr. A. J. Evans in his *Mycenean Tree and Pillar Cult*, 1901, p. 198. The late Father E. Magri, S.J., described some fragments in his *First Report of a Megalithic Temple at Xewkiya, Gozo*.

As most of the pottery connected with the megalithic monuments of Malta is found in a fragmentary condition, no notice thereof was taken by the late Dr. A. A. Caruana in his work on *Ancient Pottery*, wherein he figured and described only whole vases. Thus a full description of the Maltese prehistoric pottery is still a desideratum.

A favourable opportunity for such a work presented itself lately on the occasion of the important discovery of a prehistoric hypogeum at Casal Paula, in a place called 'Hal-Saffieni,' facing the Addolorata Cemetery.

This subterranean monument, a sanctuary and a necropolis, was discovered accidentally in 1902 during the digging of a cistern for a newly-built house. It consists of several chambers situated at different levels.

The whole place was nearly full of red earth, stones and rubbish, among which were found a large number of human and animal bones, implements of flint and other stone, some whole vases, a large number of fragments of pottery, a few votive statuettes, a large number of perforated shells, small perforated axes in obsidian and fibrolite, amulets and ornaments, and a considerable number of other interesting objects. The description of these lies beyond the scope of this paper, which is limited to the description and classification of the pottery found in the hypogeum.

As it happens that the Hal-Saffieni hypogeum contains nearly all kinds of pottery and most of the styles of decoration of the fragments hitherto found at Hagiar Kim, Mnaidra, Bengemma, Corradino, Gigantiya, Xewkiya, and other megalithic monuments

in the Maltese Islands, a study of the pottery found at Hal-Saflieni may be considered as a general study of the prehistoric pottery of the Maltese Islands. Considering that pottery is of the greatest value to the archaeologist, the comparative study of the prehistoric pottery of Malta, and of the other countries bordering on the Mediterranean, will help to solve the debated question of the age of the megalithic monuments of Malta, and to throw light on the important question of the origin of its first inhabitants.

It is to be regretted that the hypogeum at Hal-Saflieni has been rifled on more than one occasion, and that the archaeological treasures it contained have been thrown into such a state of confusion as to render its scientific exploration a matter of extreme difficulty. It is also a matter for regret that the clerical duties of the late Father E. Magri, S.J., who was entrusted with the exploration of the hypogeum, prevented him from devoting all the time that was required for the personal supervision of the sifting of the rubbish which nearly filled the hypogeum. The work was entrusted to untrained workmen, and it is only too probable that a considerable number of small objects may have escaped their attention, even supposing that the tedious work, to which they were not accustomed, was always done conscientiously. It is perhaps due to this circumstance that not the least trace of copper or bronze objects was met with. This total absence of metallic objects is strange, for though on the one hand the presence of flint and stone implements, and the primitive style of decoration of several vases or sherds, show that the Hal-Saflieni hypogeum belonged to the late neolithic age,* there are, on the other hand, several proofs that it continued to be used during the first and possibly the second of the 'Sikel periods' proposed by Dr. Orsi in classifying the bronze age in Sicily, and therefore during the early metallic age.

The absence of metallic ores in the Maltese Islands, and perhaps also the pacific character of their early inhabitants, may have caused the neolithic age in these islands to be prolonged till long after the introduction of copper and bronze in other parts of the Mediterranean. The same fact happened in several places in Central Europe.† This prolongation did not, however, prevent the

* Cf. WOSINSKY, *Inkrustirte Keramik der Stein- und Bronze-Zeit*, Berlin, 1904. p. 60.

† Vide VON STERN, *Die Prämikenische Kultur in Sud-Russland*, Moscow, 1905; quoted by PROF. RONALD BURROWS in *The Discoveries in Crete*, London 1907, p. 185 ff.

Maltese Islands from feeling the influence of the Aegean civilisation during the bronze age.

Some time after the beginning of the exploration of the hypogeum, Professor Them. Zammit, the learned Curator of the Valletta Museum, called my attention to two fragments of brown clay found at Hal-Saflieni, decorated on one side with elaborate geometrical patterns, and on the other with incisions representing strange quadrupeds with large curved horns and long tails. The novelty of the find impressed me so vividly that I proposed, there and then, that a careful search should be made among the heaps of potsherds which lay in the corners of the chambers of the hypogeum, with a view to finding the other portions of the plate. My proposal was accepted, and I volunteered to supervise the work personally. Some of the missing portions of the plate were actually found, but not all, and the plate is still incomplete. But my labour was amply remunerated, inasmuch as I succeeded, after more than four years' work, in which I was assisted by the two caretakers of the Museum, in re-constructing completely a good number of vases, and in many cases in piecing together fragments in sufficient number to acquire an adequate idea of the shape and size of the vessels.

What struck me most, when I began the work of classification, was the extremely limited number of vases which were found whole, whilst the potsherds exceeded twenty thousand in number. This, however, may be accounted for by the fact that the hypogeum was a sanctuary and a necropolis, and the vases found therein were, as a rule, broken before being placed in the tomb, the idea being that they must participate in the death of the person to whom they were consecrated. It was also a common custom to break all the vases used at the funeral as soon as the rites were over. Among the vases that were found whole or only partly broken there were several of minute size, measuring 5 to 8 cm. in diameter; most of them bowls, some ornamented with incisions filled with white, others plain. They were, very likely, meant as votive offerings.

The variety of shapes of the vases found whole or re-constructed is very remarkable. There were jars and jugs, bowls and basins, pots and cups, ladles and strainers. But the shape which occurs most frequently is that of the bowl. There are several of elegant

form, plain or decorated in various styles, with rows of projecting studs, polished or burnished or painted red in two shades, others made of black, brown, grey, buff, yellowish-red, or cream-coloured ware of various degrees of thickness and fineness, with straight or curved rims, in some cases provided with one or more handles of various shapes, sometimes projecting vertically beyond the rim, in other cases provided with knobs of various shapes in lieu of handles.

The total absence of lamps appeared to me as very strange in a subterranean building to which daylight had no possible access. No lamps or fragments of lamps of the usual forms known as Phoenician or Punic, Greek or Roman, Byzantine or Christian, so common in our rock-tombs or catacombs, were found among the thousands of potsherds examined. It occurred to me, however, after much reflection, that the numerous vases of a peculiar shape, re-constructed wholly or partly, and described hereafter, with rounded bodies surmounted by quasi-conical shoulders, and provided with four perforated lateral projections by which the vessels could be suspended, might, after all, be the lamps so long looked for.

I was quite pleased to find that my surmise was fully corroborated by Monsieur E. Cartailhac, who, in *Les Monuments primitifs des Îles Baléares* (p. 49), states that the vases therein described were lamps: they are of a similar shape and nearly the average size of those re-constructed from fragments from Hal-Safieni. At Hal-Safieni the lamps must have been suspended from the ceiling. Unless I am much mistaken, there are still several perforations in the ceiling of one of the central chambers, 25 mm. in diameter and 75 mm. deep, some of which may have served for the suspension of lamps.

It is remarkable that the decoration of these lamps is much more accurate, and the workmanship more refined, than that of any other form of vases found at Hal-Safieni. If these lamps were not imported, and, as far as I could ascertain, they appear to be of local fabric, they bear testimony to the high degree of perfection attained by the ceramic art in Malta during the early bronze age.

A vase of exactly the same shape and size, but undecorated and unprovided with ears for suspension, may be seen at the British Museum among the bronze age pottery collected at El Algar, in the

South-East of Spain, by Messrs. Henri and Louis Siret (cf. also *Les premiers Ages du Métal dans le Sud-Est de l'Espagne*, p. 127, figs. 169-171, from Palmella). It is marked as a 'vase of exceptional form,' but no information is given as to its use.

Another vase in the same collection, marked No. 42, is more rounded and has not the sharp edge which divides the lower from the upper part of the vase; but it is provided with four perforated ears evidently meant for suspension by cords or strings. It is designated as a 'vase of unusual form.' It was found with a dagger and a halberd of bronze.

Vases of a quite different form, but decorated in the same style as those from Hal-Saflieni, have been found at Thapsos in Sicily, and are exhibited at the Archaeological Museum of Syracuse. They belong to the second Sikel period, but their workmanship, when compared with that of Hal-Saflieni pottery, is coarse and rough. Vases of a more refined workmanship occur in other parts of Sicily, for instance, at Terranova. From this it may be inferred, with some degree of probability, that our hypogeum remained in use for long ages, which inference accounts for the variety in the styles of decoration of its pottery, and renders it of great interest to archaeologists.

I confidently trust that the following description of the pottery found at Hal-Saflieni, which I have aimed at rendering as clear and accurate as was in my power, may serve as a basis for the exact determination of the age, not only of the Hal-Saflieni hypogeum, but also of the other megalithic monuments of the Maltese Islands.

CLASSIFICATION OF THE POTTERY IN DETAIL

I. UNORNAMENTED POTTERY

SECTION A

Class 1. Coarse, buff, reddish, or grey ware, unornamented, 2-3 cm. thick. The colour of the clay varies from an ashy white to a dark grey, and from a dirty red to a reddish brown. As a rule, the thicker fragments are the coarser. They appear to be very primitive.

The forms of the vases are in most cases undeterminable. Besides a few jars and pots with handles, there are several

fragments of large flat bottoms, and handles of various shapes, for large ordinary jars. One such jar, 58 cm. high, 17 cm. diameter at the base, 32 cm. at the shoulder, with neck 8 cm. high and 17 cm. in diameter, has been fully re-constructed.

No appreciable difference can be detected between some of these fragments and those found by Mr. J. H. Cooke in the 'Ghar Dalam' cavern, a few feet above the stratum which contained *Cervus barbarus* and other extinct animals of the quarternary period: some of these fragments are preserved in the Malta University Museum. However, no inference can be drawn from this resemblance, as the same kind of ordinary pottery for household purposes appears to have been made in Malta in all ages up to the present time, and consequently no scientific classification of this coarse unornamented ware is possible.

II. ORNAMENTED POTTERY

SECTIONS B TO G, *Classes 2-26*

The case is quite different with the decorated pottery. The recent progress of prehistoric archaeology facilitates the comparison between the pottery found at Hal-Saflieni and that met with in several countries of Europe, Asia and Africa, particularly those bordering on the Mediterranean, Sicily, Sardinia, Spain, Carthage, Egypt, Crete, Cyprus and Palestine; and allows the formation of chronological sequences for fixing approximately the epochs at which the various kinds of pottery were made.

SECTION B

This most primitive style is ornamented with pit-markings, more or less deep. These markings are (a) at first roughly triangular in form, deeply impressed in a coarse thick clay; (b) later, small, round, less deep and nearer to one another, or (c) more or less elongated and distributed in rows, in less coarse clay; (d) at last, these pit markings are reduced to mere dots or punctures evenly distributed, or filling the ground of incised patterns: see below, *Section G, Classes 23, 24, 26.*

Class 2. Coarse, light greyish ware, 2 cm. thick; decorated with deep, triangular, badly-shaped pit-markings; shapes of vases undeterminable; fragments only slightly convex.

To this class belongs a large fragment of a very coarse greyish ware decorated with close deep triangular pit-marking, which reminds us of the wall decorations in several megalithic monuments in the Maltese Islands. As the fragment is nearly plane, the shape of the vessel to which it belonged is undeterminable.

Class 3. Fine grey or buff ware of medium thickness (5-10 mm.) decorated with more or less hollow, round or elongated pit-markings (4-15 mm. diameter), uniformly distributed. Plate I.

This class is closely related to the preceding Class 2. The decoration consists of pits or dots more or less evenly distributed over the surface. The pits are some deep, some hollow, and vary from the size of a lentil to simply punctured elongated dots. The only shapes of vases which could be determined were those of an interesting bowl formed of black clay decorated with a curvilinear incised band and elongated dots filled with white gypsum, and of a cover decorated in the same style, and found whole. The bowl has a handle of strange form, attached to the centre of the interior. It consists of two vertical rectangular supports 7 cm. apart, and 7 cm. high, holding a tabular horizontal piece slightly concave, measuring 7 by 5 cm. The cover is slightly conical, measuring 15 cm. in diameter, and is provided with a triangular handle fixed at the apex of the cone.

SECTION C

Rather coarse yellowish or buff-coloured wares; decorated in relief with the imbricated leaf, the fish-scale, or the scallop.

Class 4. Buff-coloured ware of medium thickness (5-10 mm.), covered with a fine slip; decorated with straight or curved ribs or fluting in relief (1-4 mm. wide). Fragments only, probably of bowls. Plate II.

Class 5. Coarse reddish ware of variable thickness (8-18 mm.), sometimes covered with a slip; decorated with overlapping rows of fish-scale ornament in relief. Large jars.

Class 6. Coarse grey or reddish ware, 10-18 mm. thick; decorated with large veined leaves in relief, forming scallops. Very large conical vases or jars. Plate III.

Class 7. Coarse reddish ware, 8-18 mm. thick; ornamented with separate overlapping leaves, with round edges in relief. Plate IV, 1, 2, 4.

Class 8. Fine buff-coloured wares of medium thickness (5-19 mm.), covered with a slip, and ornamented with overlapping rows of long narrow leaves in relief, adjacent to each other but separate. Plate IV, 3, 5, 6.

Classes 4, 5, 6, 7 and 8 include all the varieties of the relief decoration, and, properly speaking, form one large well-marked class which deserves special treatment. This style was applied exclusively to the decoration of vases formed of the local red clay. It seems to have been very primitive, as a large number of the specimens are of a coarse thick ware, and extremely rough workmanship. Some specimens, however, are more refined, and in some the workmanship of the pottery, which is hand-made, attains a high degree of perfection. Fragments of various degrees of fineness were found at Hagiär-Kim, Mnaidra, Corradino and Hal-Safieni in Malta; but, so far, none in Gozo.

This style of decoration is characteristic of the Maltese prehistoric pottery. It is unknown in Sicily, and Dr. P. Orsi, the Director of the Archaeological Museum at Syracuse, to whom I had the opportunity of showing some specimens found at Hal-Safieni, considered them quite new, and worth making known to archaeologists.

The fragments are large, as a rule, and show by their curvature that they belonged to large vases. Though the fragments at our disposal are many, it is not easy to make out the shapes of the vessels to which they belonged. But from the total absence of handles, the flatness of the bottoms, and the general aspect of the fragments, it may be safely argued that a considerable number of the fragments formed part of large shallow dishes, or of large conical vessels.

The fundamental motive of the decoration of *Classes 4, 5, 6, 7, 8*, is the modelled leaf ornament. In the coarser thick ware of *Class 6* these leaves are semi-circular, measuring nearly 8 cm. in diameter, strongly veined, and sometimes fimbriated. The leaves are disposed in horizontal rows, and each row overlaps the lower half of that immediately above it. The uppermost row is about 3 cm. from the edge of the vase. Plate III.

There is also a very coarse thick greyish ware, in which the leaves are much smaller (2 cm. in diameter), and the rows closer, so that the decoration looks as if it consisted of fish-scales. (*Class 5*.)

In a finer variety, of medium thickness (9 mm.), the leaves are long (5-8 cm.) and narrow (3-9 mm.), with parallel sides, and more projecting semi-circular tip. These leaves are in horizontal rows, and in each row they are simply juxtaposed, without overlapping (*Class 8*). The form of the leaf varies. In some cases it is quite flat; in others it is more or less hollow, and is bordered by two strong ridges (*Class 7*). The hollow is sometimes so deep that even the lateral ridges hardly project above the outer surface of the vase, which thus appears as if it were decorated in hollow relief (*intaglio* or *incavo*) instead of in high relief (Plate IV, 2). The transition from one variety to another, however, is so gradual that it is difficult to fix a line of demarcation between the two kinds of decoration.

SECTION D

Black, bluish, or red ware; decoration of prominent studs, very likely an imitation of metal-rivets or nail-heads. This style is applied to two or three different types of vases.

Class 9. (a) Dark grey or black 'bucchero' ware, fine and thin (2-5 mm.) bowls, medium sized (12-16 cm. diameter), with short vertical neck (25-40 cm. broad) and projecting rim, decorated with rows of round studs in relief (3-5 mm. diameter). In the bowls these studs are arranged in horizontal rows, both on the neck where they are round, and on the curved lower part of the vase where they become gradually smaller and elongated. The ground is painted white, and the studs are left black, or vice-versa.

(b) Yellowish red clay ladle, 4-7 mm. thick, and 13 mm. in diameter, decorated externally with studs (5-7 mm. diameter), and provided with a curved tapering handle 14 cm. long, decorated with studs on both sides. On the lower side the studs cover only the inner side of the handle. Plate V.

(c) Coarse bluish ware, 6-8 mm. thick; fragments of large flat-bottomed basins decorated with studs (8-12 mm. in diameter). Plate VI.

(d) Polished dark red ware, 8 mm. thick; fragments of the neck of a jar, partly decorated with rows of long narrow rectilinear projections (2 × 10 mm.).

(e) A small 'hanging lamp' (10 cm. in diameter) of a form to

be described hereafter (see Class 24), exhibits the same kind of decoration. Plate XVI, 11.

(f) Some fragments of a large basis about 60 cm. in diameter, of a coarse bluish clay (6-8 mm.); are decorated with studs, probably in imitation of the finer product. The studs are 15 mm. in diameter, and 30 mm. distant from centre to centre. They are applied to the lateral part of the vessel, but not to the projecting rim. The base is flat and plain. An identical sherd was found in the ruins of Hagiär-Kim. Plate VI, 3.

(g) Two small fragments of a vessel of a yellowish red fine clay and decorated with studs, are included in this class; the shape of the vase to which they belonged could not be at first determined, but fortunately the missing portions of the vessel have now been found among other potsherds embedded in the floor of one of the chambers lately discovered, and they show that the vessel is a fine ladle, the bowl of which measures 10 cm. in diameter. Attached to it is an elegant curved tapering handle decorated with studs on both sides. Plate V, 1.

This important discovery leads to the belief that some of the missing portions of the vases found in what may be called the older part of the hypogeum may possibly be found in the part lately discovered. This expectation, which, as we see, was partly realised, retarded for some time the publication of this paper.

Examples of decoration with small studs were met with at Knossos, and decoration with large studs at Zakro in Crete.*

SECTION E

Yellow or grey ware, highly polished or burnished, but without ornament.

Class 10. Pale yellow, buff or drab-coloured ware of medium thickness (4-8 mm.), covered with a slip and highly polished or burnished, but not ornamented. Fragments of bowls of various sizes.

Class 11. Light or dark grey ware of medium thickness (5-7 mm.), highly polished. Bowls, 20-55 cm. diam. Plate XVII, xii, xiv, xxv. This class of burnished ware differs from the preceding one in the colour, which is here either dark brown or

* [This Cretan decoration is, however, a *barbotine* applied in a fluid state, rather than a modelled relief-ornament. J.L.M.]

dark grey. The vases are all bowls. Some have been completely re-constructed; of others only some fragments could be pieced together.

To this class belongs a deep bowl, 25 cm. in diameter, which was found full of a blue clayey powder in which were embedded several metatarsal and other small human bones. Two other large fragments pieced together give the dimensions of a large basin belonging to this class. The basin measured 70 cm. in diameter and 20 cm. in height. The bottom is of spherical curvature. The average thickness of the sherds is 10 mm. In this class may also be included a fragment of a highly polished grey vase perforated on its convex surface with small holes uniformly distributed. This part of the vase terminates in a short neck 2 cm. high. The vase appears to have served as a strainer, and recalls the perforated pottery found by Dr. Bliss at Tell-el-Hesi, in South Palestine.*

SECTION F

Red ware ornamented in various ways: with rope-ornament, incised or in relief, and other band-ornaments.

Class 12. Red ware of medium thickness (5-8 mm.), decorated with cords or ropes (8 mm. wide) in relief.

A jar of this fabric, 24 cm. in diameter and 25 cm. high, on a base 12 cm. in diameter, was re-constructed out of a large number of fragments red on the outside and grey on the inside. Plate XVII, xiii. It is provided with two vertical handles at its largest diameter. Its lower part, conical in shape, is surmounted by a spherical shoulder. The neck is missing; it was probably conical. It is decorated with a double rope-ornament, incised, running nearly horizontally round the upper part of the shoulder. A single rope-ornament runs also horizontally just above the handles, at an average distance of 8 cm. below the other.

Class 13. Red ware of medium thickness (4-8 mm.), decorated with one or two bands of four or five parallel incised lines. The fragments of red ware included in this class belong, with few exceptions, to basins, conical, or only slightly convex, with a flat base, sometimes provided with a foot-ring. As a rule, these vases

* BLISS. *A Mound of Many Cities*, London, 1894, fig. 176.

have no handles, but their walls are perforated with holes evidently meant for cords or strings. They are sometimes decorated with one or two horizontal bands consisting of four or five parallel incisions in relief running round the neck at a distance of about 3 cm. from the brim.

Class 14. Common red ware of medium thickness (4-10 mm.); the greater part of the sherds are of the same shade of red on both sides, ranging from crimson to vermillion. In other cases, however, they are red on one side and yellowish on the other, or red on the outer side only, the other side being black or dirty grey, which is the natural colour of the clay, as may be seen from the fracture. This may be due to uneven firing.

In this class are included a small number of vases of various shapes and sizes. Their clay is covered with a thin slip of finer clay of a more or less deep scarlet. Although its fracture is quite definite and sharp, it has not been possible to restore the shapes except in a few cases, out of a very large number of fragments of unornamented ware. In ornamented ware, it is a relatively easy task to adjust fragments, but in the absence of the latter the task becomes difficult. It was owing to this difficulty that I succeeded in only a few cases in making out the shape of vases of this kind. This shape is that of a small pot with a flat base, conical body, and no rim. Plate XVII, i, viii, ix, x, xvii.

Class 15. Red ware of medium thickness (4-7 mm.); painted in darker red. Bowls. Plate XVII, xvi.

Among the various styles of decoration of the Hal-Saffieni pottery the painted fabrics remained in a very primitive state. The very few specimens that can be quoted are nothing but the merest attempt at coloured decoration.

(a) As a first example may be quoted several fragments of what appears to have been a shallow cup. One of them is provided with a portion of a long horizontal handle. All the fragments, which are of a yellowish-red clay, are decorated on their concave side with small deep red spots or discs evenly distributed all over the surface.

(b) A better specimen is a deep bowl 13 cm. in diameter with outer surface decorated with two deep-red bands 12 mm. broad, intersecting at right angles at the centre of the curved bottom, and

prolonged as far as the neck, thus dividing the outer surface of the bowl into four equal panels.

(c) In a fragment, apparently belonging to a large bowl 25 cm. in diameter, the decoration consists of vertical red bands, 7 cm. apart, painted on a yellowish-red ground, and terminating in a deep-red horizontal band running at the top of the neck.

(d) There are also a few small red cups, the upper half of which is painted in deeper red than the lower half.

(e) A considerable number of convex fragments of red vases have the outer surface blotted in several places with a large black patch, apparently due to the action of the flames in an open fire, although several of the patches look as if they were painted as parts of a dark red pattern.

SECTION G

Various fabrics and shapes with decoration of incised lines, filled, as a rule, with white or red paint to emphasize the design.

The motives of the decoration may be classified as follows:—

- (a) simplest geometrical elements;
- (b) straight lines drawn at first almost at random, then nearly parallel;
- (c) elegant composite forms, lozenges, triangles, zigzags and lattices;
- (d) curvilinear motives, scrolls and meander bands;
- (e) naturalistic motives, leaves and animals.

Class 16. Light-grey ware; granulated; 15-20 mm. thick. The numerous fragments grouped in this class belong to a very large flat-bottomed vase of conical shape, slightly bulging near the middle part. Its largest diameter, at the top, measures about 60 cm., and its smallest one, at the base, 16 cm. It is provided near the upper edge with four projections like knobs elongated vertically, 75 cm. long and 25 mm. broad; these served as handles. The thickness of the clay varies between 20 and 25 mm., and from the aspect of the fracture in a certain number of the fragments it appears that this large vase was constructed by horizontal zones or belts, superposed on one another whilst the clay was still soft. The inner surface is blackened almost completely, possibly with smoke. The outer surface is of a drab colour and finely granulated. It is

decorated with deep vertical incisions, evidently made with a sharp pointed tool before baking. Although the incisions are practically vertical, and therefore parallel in the upper part of the vase, they often meet in the lower part, and even cross each other in some cases. They terminate at 2 cm. from the rim, which is undecorated.

These fragments were all found in the chambers of the hypogeum which were discovered in 1902, except one large one which, curiously enough, was discovered in one of the chambers lately excavated.

Class 17. Light grey ware, granulated, of medium thickness (4-12 mm.), decorated with parallel incisions, sometimes oblique, made before firing, less deep and further apart than those of Class 16. Plate XVII, ii, v, vi, xi. Besides two small bowls, 8 cm. and 12 cm. in diameter, decorated externally with oblique parallel incisions, only one other vase could be determined out of the sherds. It consists of two large fragments, which are sufficient to give an adequate idea of its shape and size. The base is flat and measures 14 cm. in diameter and 8 cm. high. The profile is conical, broadest at the rim, with an upper diameter of 24 cm. In the interior of the vase, at the centre of the base, is attached a quasi-cylindrical knob 2 cm. in diameter and 3 cm. high, with a rounded top. The clay is creamy white, and the outside is decorated with vertical incisions terminating in an undulating line running along the upper edge which projects slightly outwards.

Class 18. Grey or brown ware, fine and polished, of medium thickness (4-7 mm.), decorated with incised ornament of intersecting straight lines, single or double, forming lozenges. The lines are filled with white. Plates VII and VIII.

In this class have been grouped the fragments of several vases, apparently deep bowls with concave shoulders. There are no traces of handles or knobs.

Class 19. Grey or brown ware, fine and thin (3-5 mm.); decorated with rectilinear incisions filled with white, forming lozenges, triangles, zigzags, and lattices. Plate IX.

This class includes a large number of fragments. On one convex fragment (Pl. IX, 1) the motive consists of lozenges alternately plain and sub-divided into smaller lozenges. On others (Pl. IX,

4, 9) the incisions are deeper, the lozenges larger, and punctured at the centre. There is also a fragment (Pl. IX, 2) decorated with six parallel vertical lines, on each side of which are incised adjacent equilateral triangles filled out with punctured dots. On another fragment, apparently a portion of a concave neck (Pl. IX, 3), the decoration consists of a broad band round the neck, formed of two parallel horizontal lines, and filled with two rows of fine zigzags.

On a part of a neck a zigzag of larger size (Pl. IX, 6) is formed of sets of four parallel lines deeply incised in relief. The angles of the zigzag are nearly right angles. Other fragments are decorated with panels filled with fine small lattice.

Class 20. Black ware, 3-5 mm. thick, decorated with incisions filled with white. The ware is a kind of *bucchero* similar to that found in several parts of Italy, in Sicily, Boeotia, Rhodes, Crete, and elsewhere.* In this class are grouped small vases, for the most part bowls with concave neck, of fine black hand-burnished clay, 6 mm. thick. It is decorated with curvilinear motives of nearly the same pattern, consisting of two, three, or more equidistant incised lines forming a maeander-band or scroll, which runs round the concave neck of the vase. The incisions are very slight, in the style called 'graffito' by the Italian archaeologists. Neither the design nor the ground has any other decoration. Plate X.

Class 21. Cream-coloured ware, only 3-5 mm. thick. Incised maeander-bands or curvilinear scrolls, with the contour painted in red.

The technique of 'incrustation,' or the filling of incised pottery with white, appears to have been followed by that of painting in red the contour of the incisions. The ground is painted in cream-white. Several fine specimens of bowls of medium size, 12-20 cm. in diameter, were found at Hal-Safien. Plates XI, and XVII, xviii, xxvi.

Class 22. Light-grey or reddish-brown ware, only 3-8 mm. thick. Curvilinear motives, incised scrolls, with short oblique strokes on one side, like one half of a 'herring-bone pattern.'

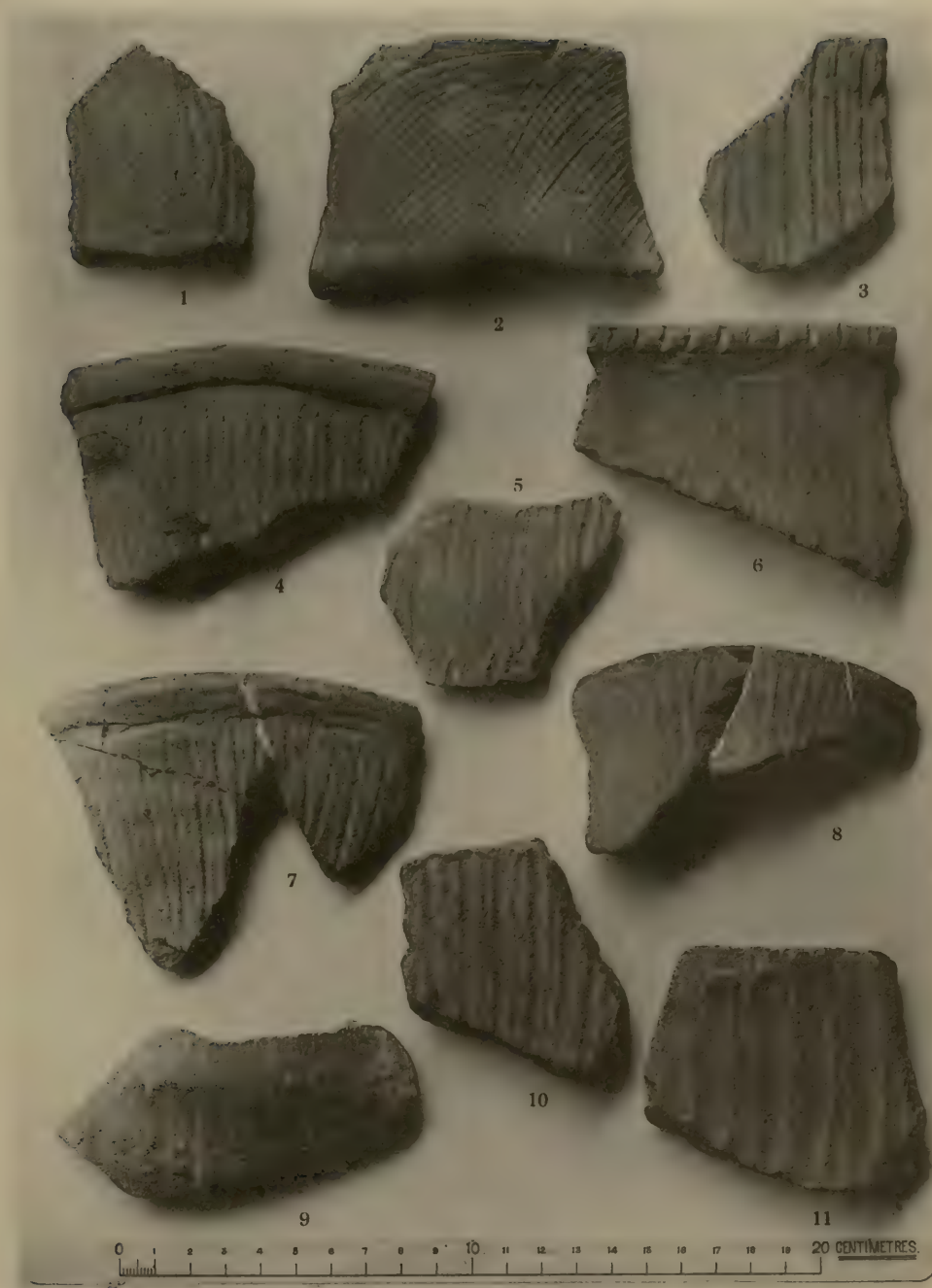
The vases included in this class are all of the same shape, with rounded body on a ring-base, and conical shoulder and neck, and projecting rim. They differ considerably in size, varying from

* Compare WALTERS, *History of Ancient Pottery*, Vol. II, p. 291.



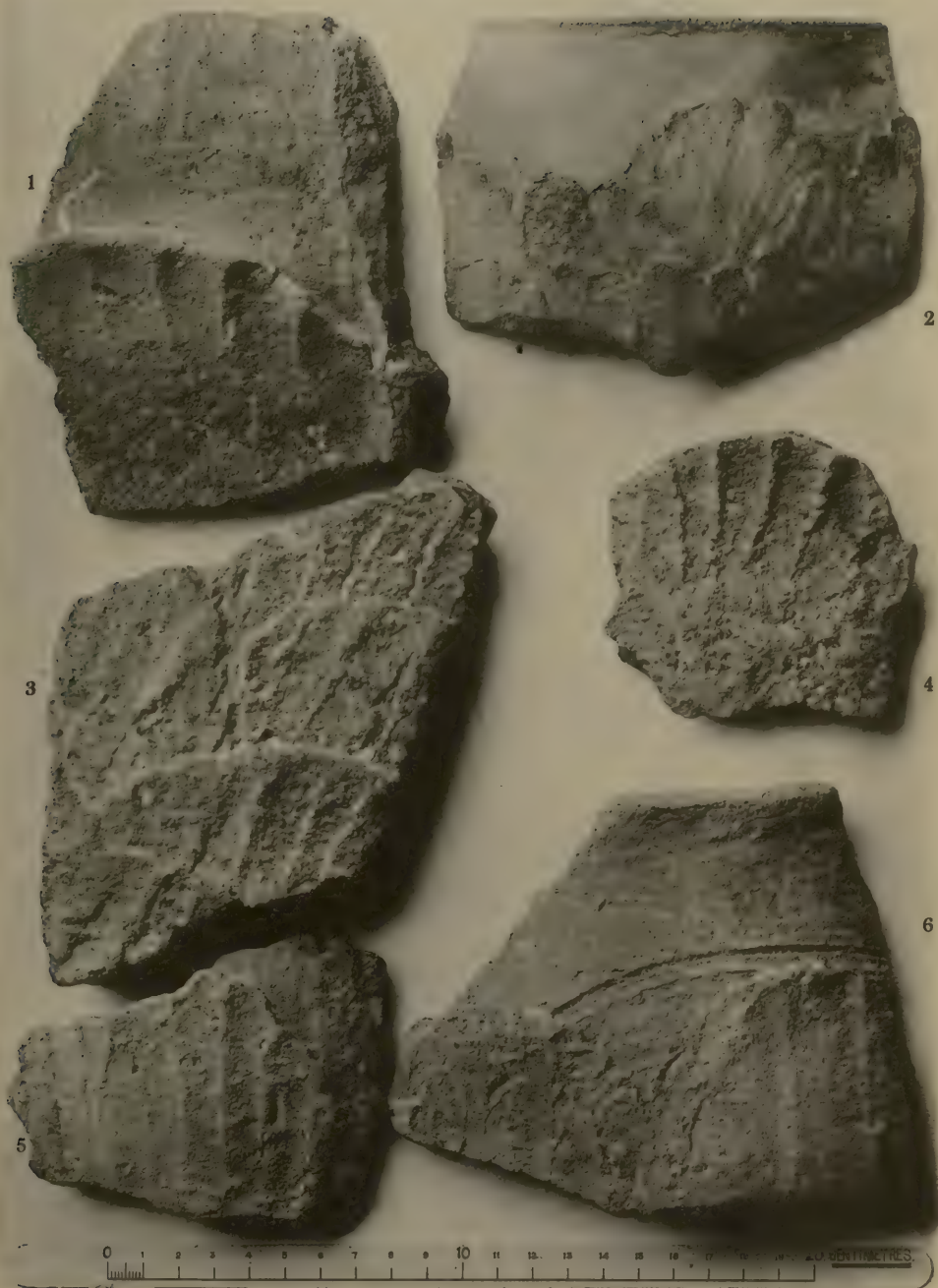
POTTERY FROM HAL-SAFLIENI, MALTA.

SECTION B, CLASS 8. Ornament of pits or punctures of various shapes.



POTTERY FROM HAL-SAFLIENI, MALTA.

SECTION C, CLASS 4. Ornament of ribs and fluting.



POTTERY FROM HAL-SAFLIENI, MALTA.

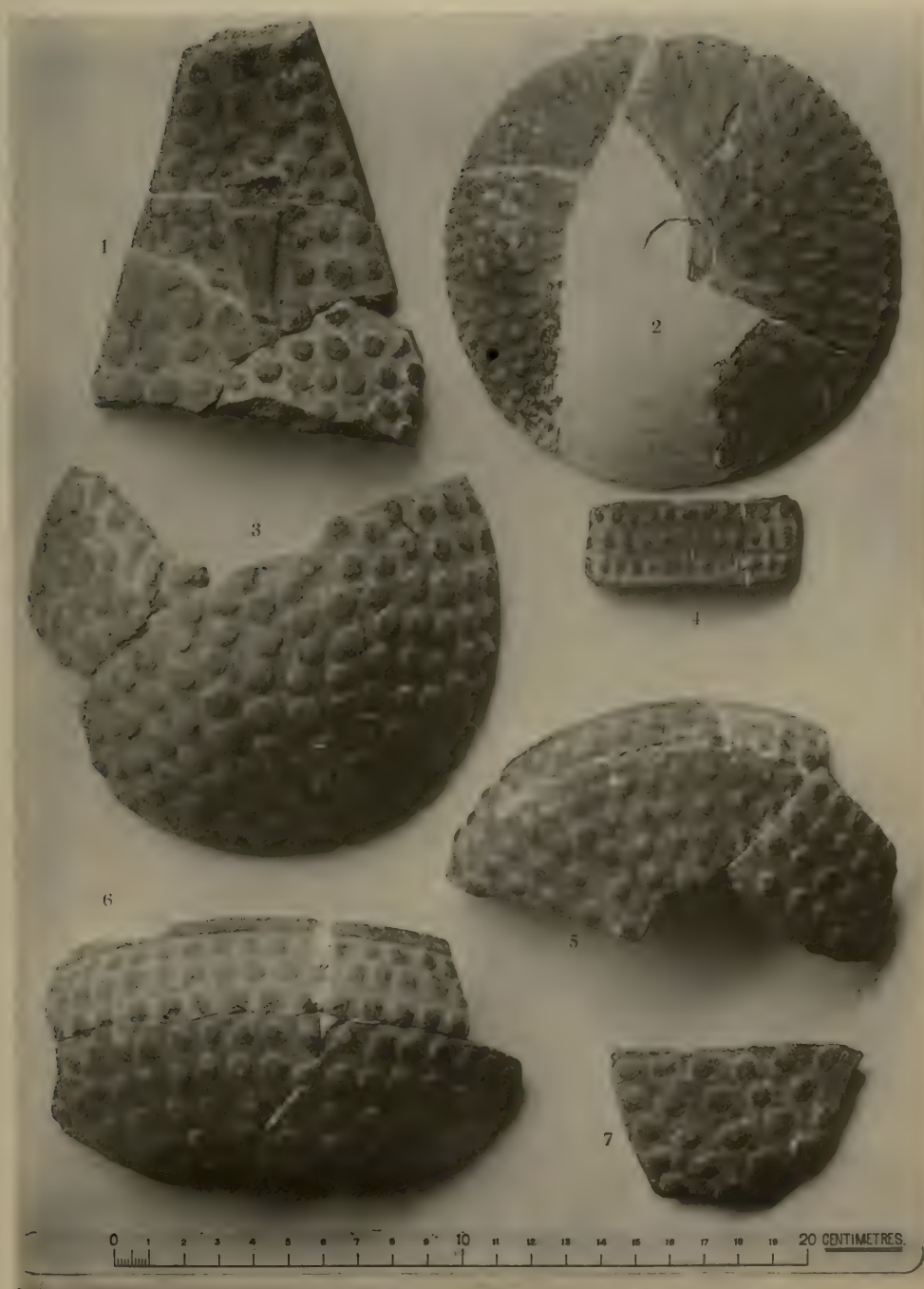
SECTION C, CLASS 6. Ornament of veined leaves or scallops.





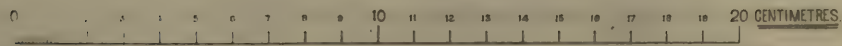
POTTERY FROM HAL-SAFLIENI, MALTA.

SECTION C, CLASSES 7-8. Ornament of overlapping leaves and scales.



POTTERY FROM HAL-SAFLIENI, MALTA.

SECTION D, CLASS 9. Ornament of bosses or studs.



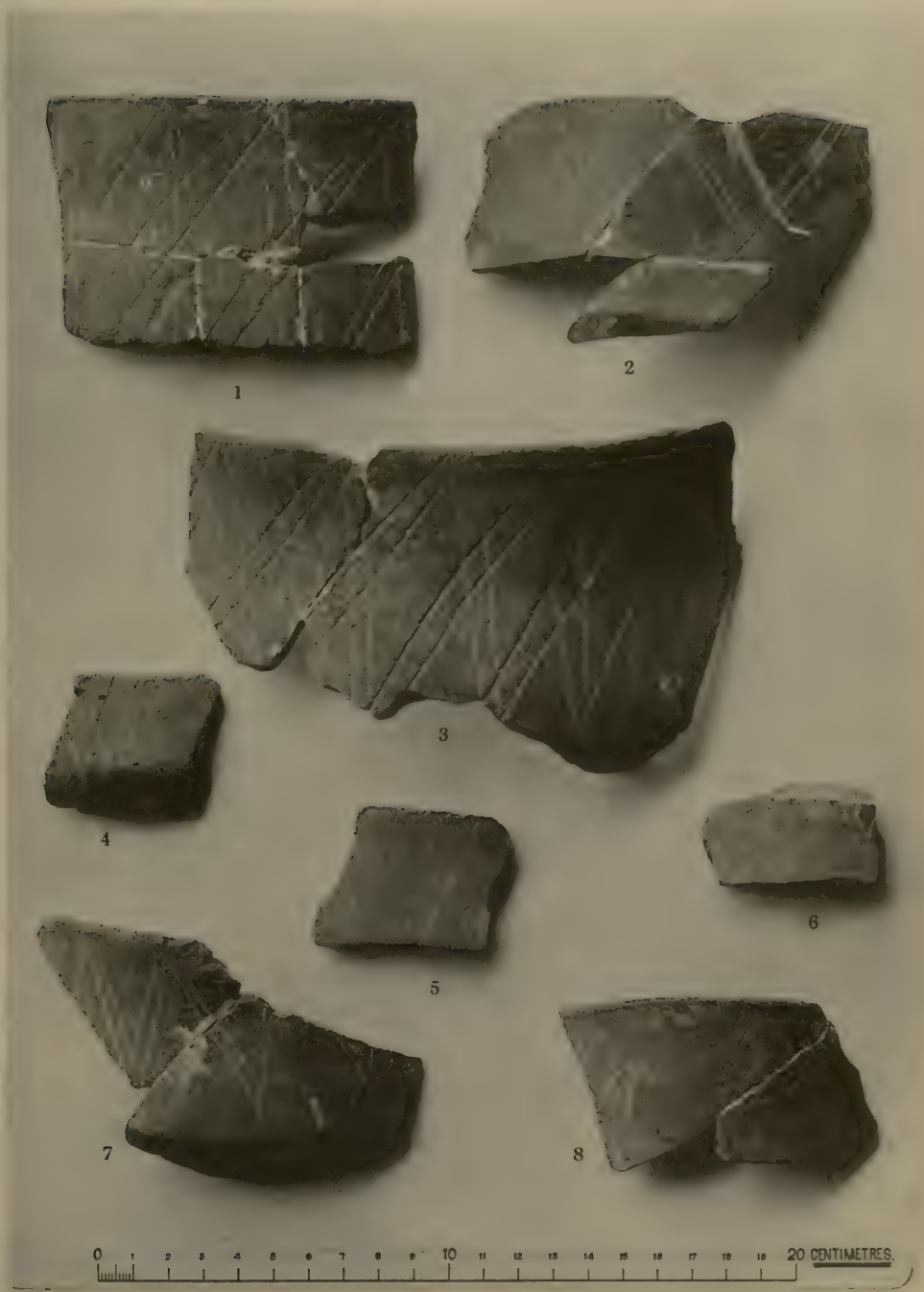
POTTERY FROM HAL-SAFLIENI, MALTA.

SECTION D, CLASS 9. Ornament of bosses or studs.



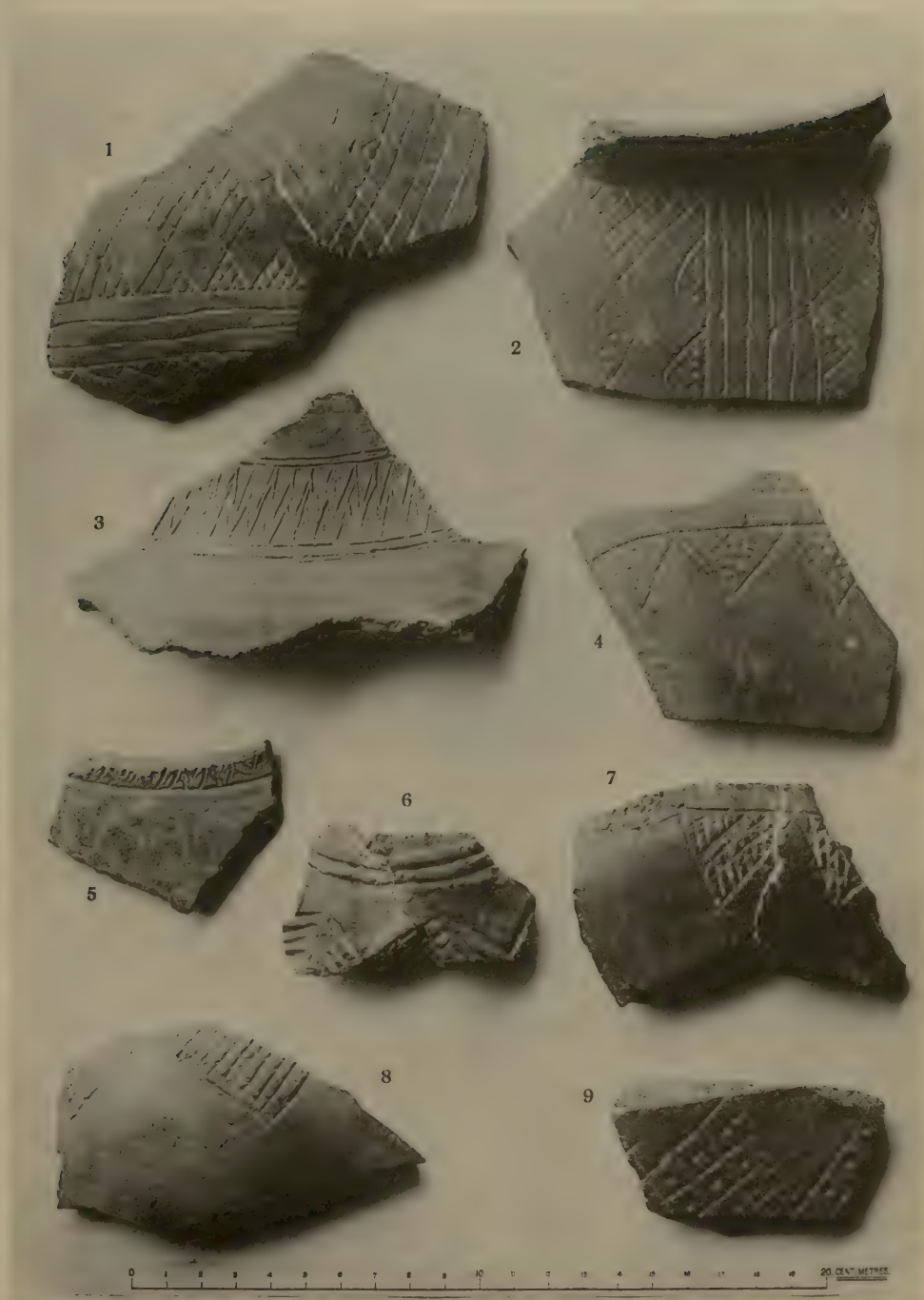
POTTERY FROM HAL-SAFLIENI, MALTA.

SECTION G, CLASS 17. Incised rectilinear ornament, filled with white.



POTTERY FROM HAL-SAFLIENI, MALTA.

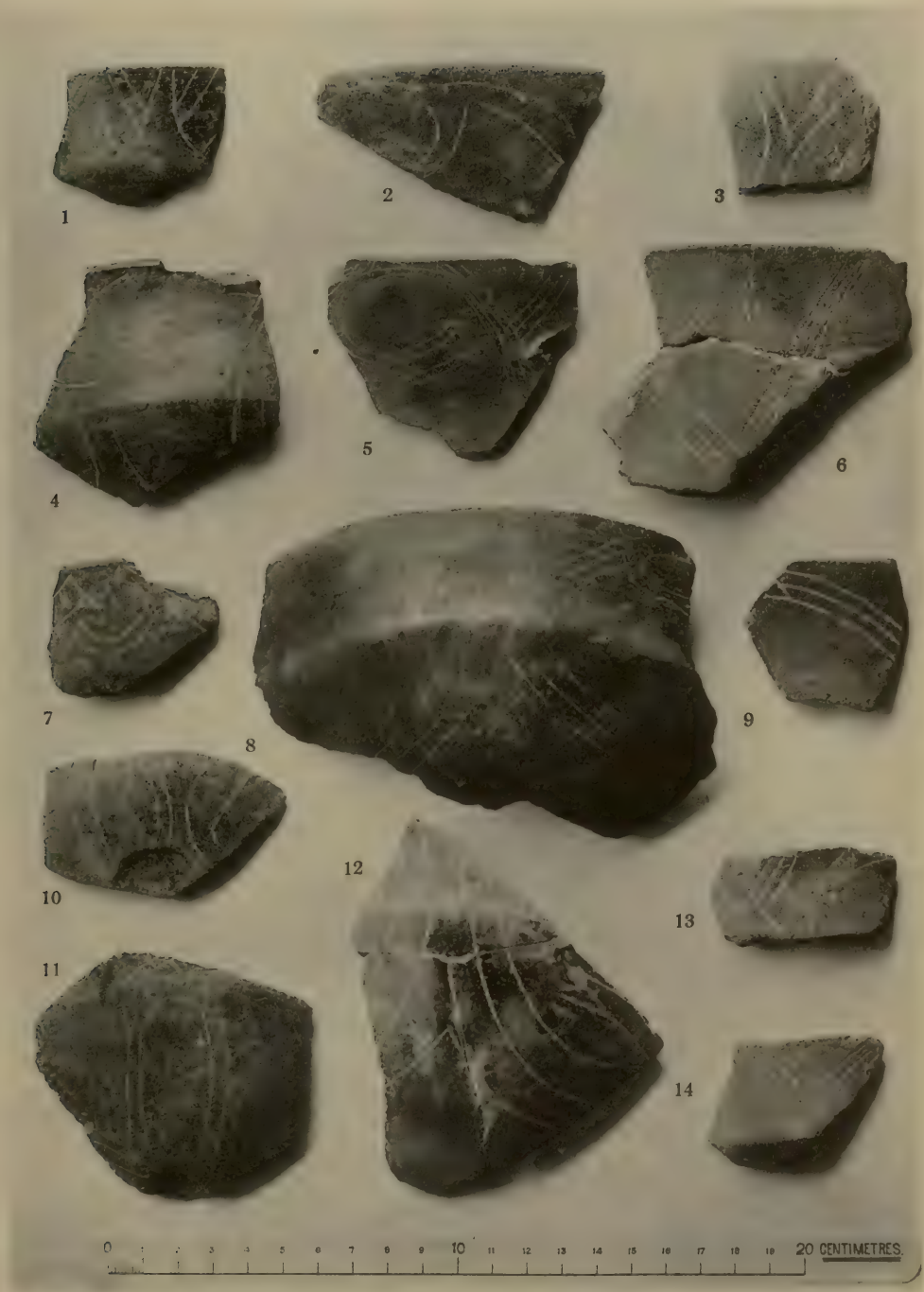
SECTION G, CLASS 17. Incised rectilinear ornament, filled with white.



POTTERY FROM HAL-SAFLIENI, MALTA.

SECTION G, CLASS 19. Incised geometrical ornament, filled with white.

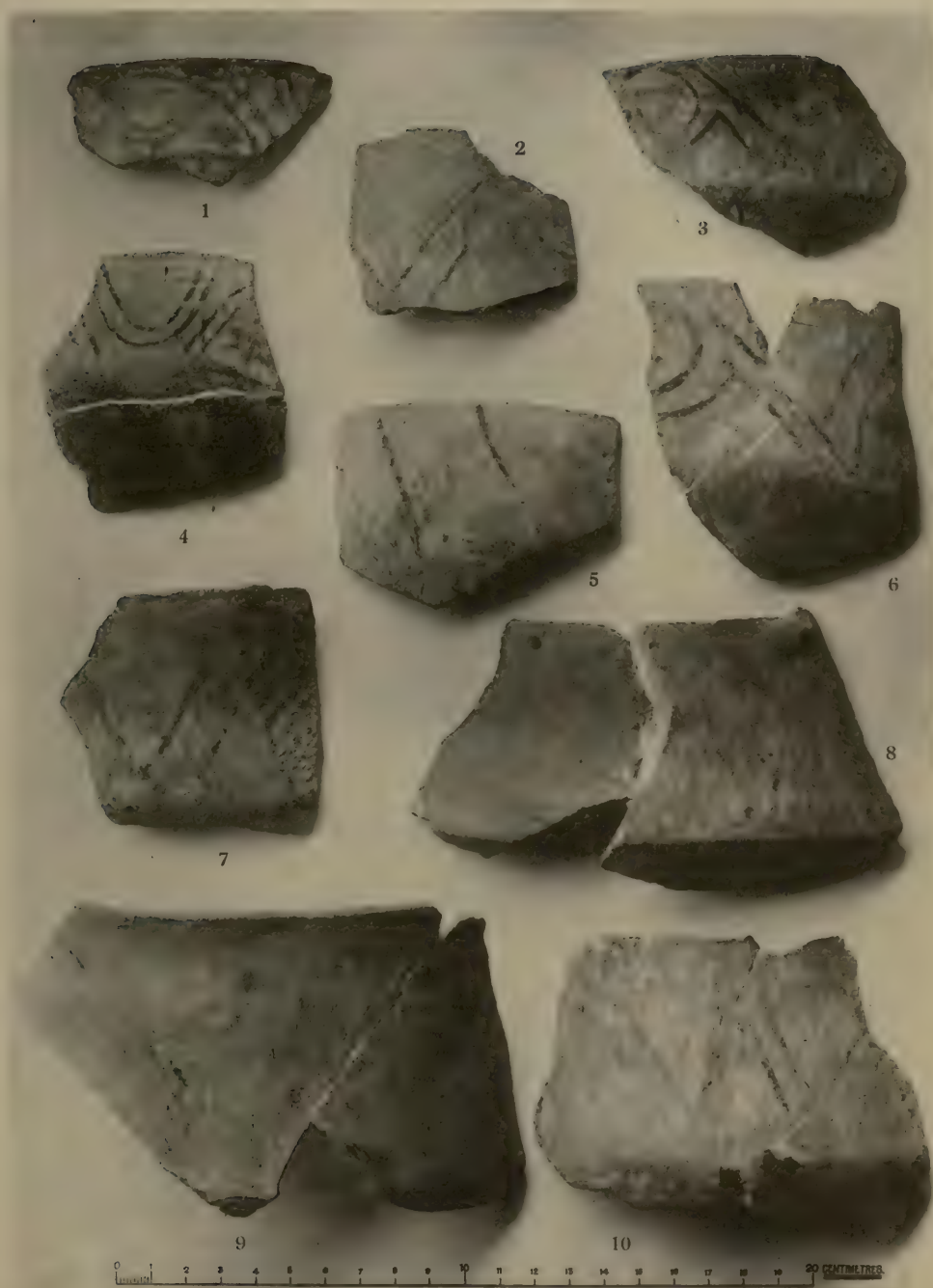




POTTERY FROM HAL-SAFLENI, MALTA.

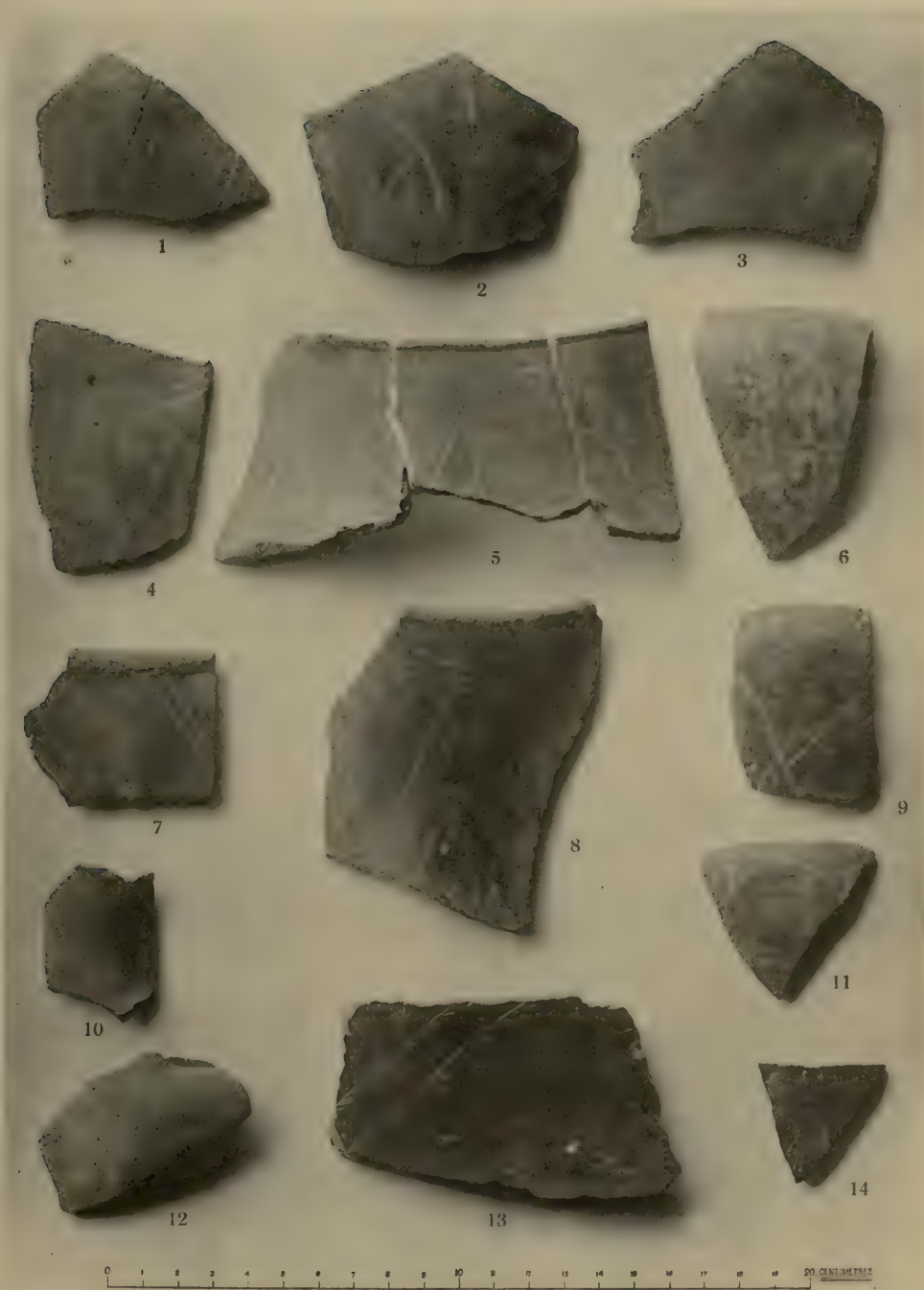
SECTION G, CLASS 20. Incised curvilinear ornament, filled with white.





POTTERY FROM HAL-SAFLIENI, MALTA.

SECTION G, CLASS 21. Cream-white clay with scroll-ornaments, incised, and over-painted in red.



POTTERY FROM HAL-SAFLIENI, MALTA.

SECTION G, CLASS 23. Scroll-ornaments formed of fringed lines.





POTTERY FROM HAL-SAFLIENI, MALTA.

SECTION G, CLASS 23. Curvilinear ornament, incised, on a punctuated ground.





POTTERY FROM HAL-SAFLIENI, MALTA.

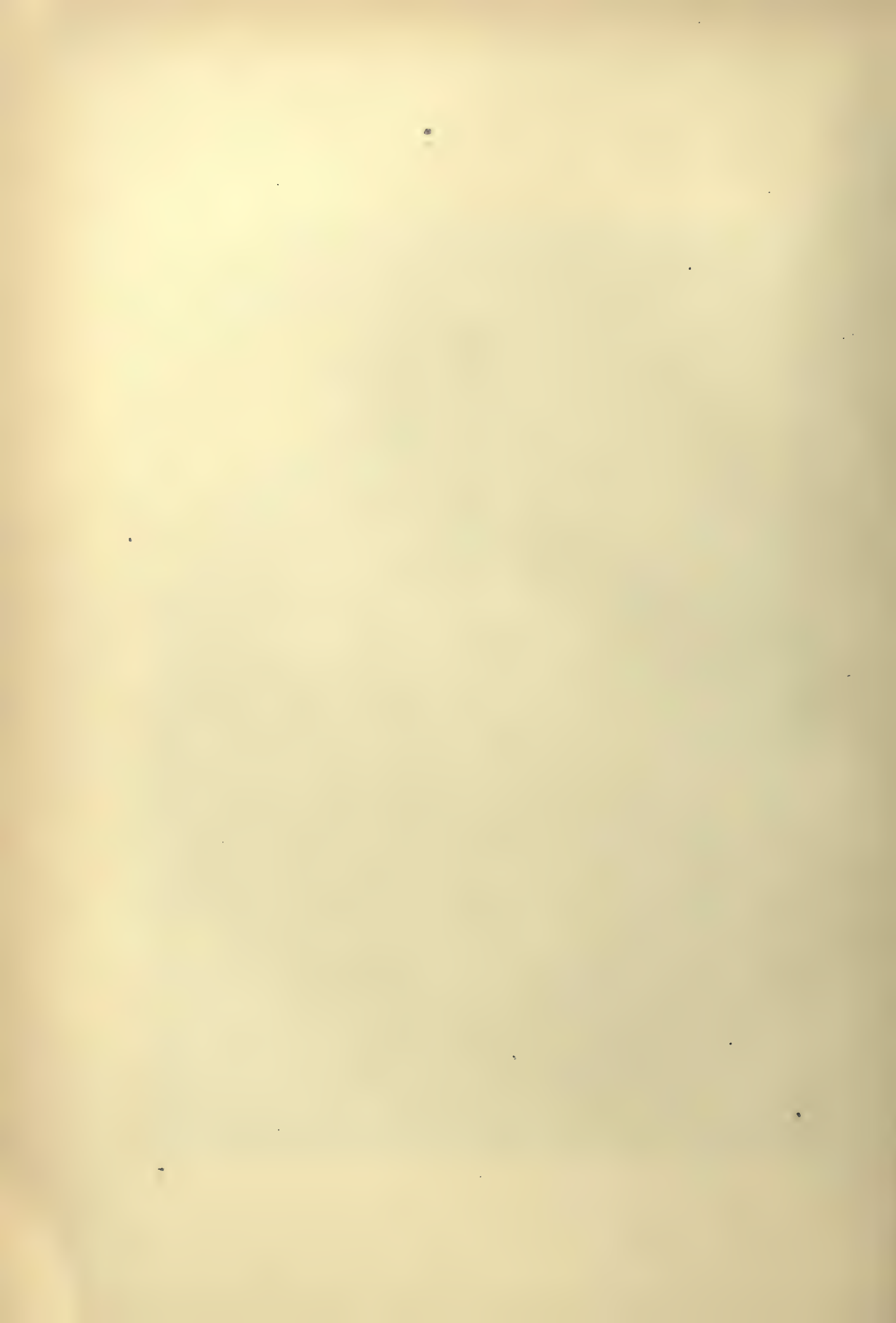
SECTION G, CLASS 24. Curvilinear ornament, incised in panels and enriched by punctuation.





POTTERY FROM HAL-SAFLIENI, MALTA.

SECTION G, CLASS 25. Concave plate of dark brown ware with incised representation of buffaloes.

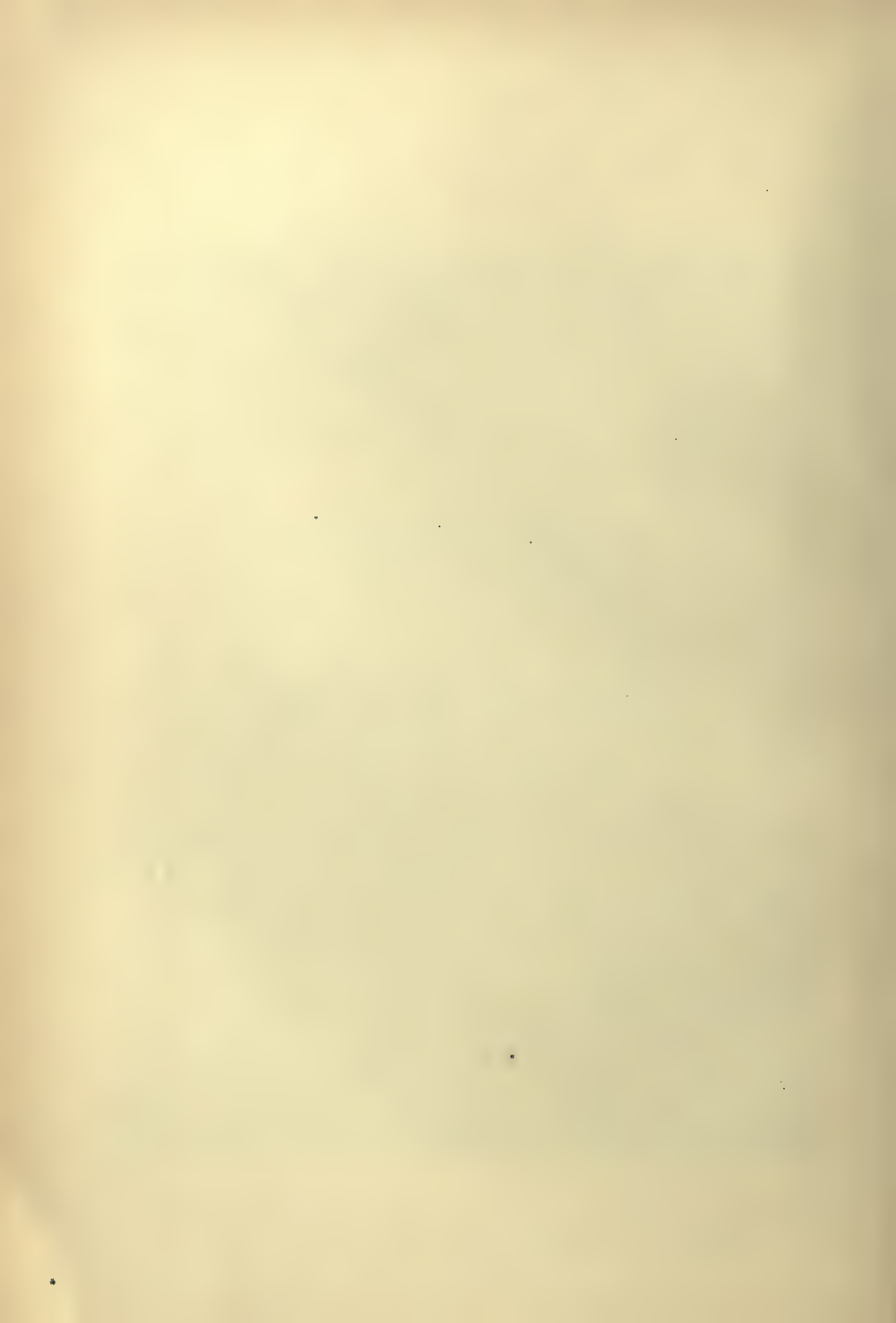




POTTERY FROM HAL-SAFLIENI, MALTA.

SECTION G, CLASS 24. So called "Hanging Lamps."

All with incised curvilinear ornament in panels; except No. 11, which is of Class 9, e, with nail head ornament in relief.





Quote these vases by the Roman numerals; the Arabic numerals denote the class to which each vase belongs.

POTTERY FROM HAL-SAFLIENI, MALTA; TYPICAL FORMS.

45 cm. to 22 cm. in height, and from 10-30 cm. in diameter. Each vase is provided with a pair of horizontal projections perforated with two holes through which passed the suspending cords. Plate XII, and Plate XVII, vii, xix, xxii, xxiii, xxiv, xxvii. The decoration is in the same style in all. It consists of a curvilinear motive formed, as in the case of the black ware, of a winding scroll. The outlines of the design are fringed with oblique short strokes, forming a 'herring-bone pattern.' Sometimes the strokes are only on one side of the outline; in other cases they are replaced by dots on the line itself. Ten vases have been re-constructed, four of which are large and six small. Three others are incomplete.

Class 23. Grey or red, fine and thin ware (1-3 mm.), decorated with winding scrolls, outlined with incised lines on a ground punctured with dots; outlines and dots are filled with white. Plate XIII, and Plate XVII, iii, iv, xv, xx.

The peculiarity of the ware of this class is that the motive of the design, instead of being geometrical as in the preceding classes, is taken from nature. It is a narrow winding leaf in the form of spiral, replacing the scrolls of the previous classes. The ground is filled with punctured dots, and the incisions are made either before or after firing. The shape of the vases may be briefly described: the lower part is conical, terminating in a small flat base; the upper half is spherical, terminating in a short neck without rim.

Class 24. Black, dark-brown or dark-grey ware, fine but thick (2-18 mm.), and covered with fine slip. The surface is divided into horizontal panels alternately plain, and decorated with double spindles and winding scrolls. The ground is either (a) filled out with dots or hatches or zigzag, and design plain; or (b) plain, with the design filled out with dots, hatches, or zigzag lines.

This class contains the most interesting among the numerous forms of vases found at Hal-Saffieni, viz., what have been called 'hanging lamps': *vide* Introduction, p. 5, and Plates XIV and XVI. Of this peculiar form of vase a considerable number were found in a more or less fragmentary condition. Fourteen were almost completely re-constructed, whilst of fourteen others, only portions more or less large could be recovered. Of the vessels completely re-constructed the largest measures 57 cm. in diameter, and 35 cm. in height, and the mouth has a diameter of 23 cm. The

others decrease in size proportionately. The smallest has a diameter of only 7 cm., and a height of 4 cm. The body of the vases is spheroidal below and conical above; its upper part curves again inwards, and terminates in a slightly convex collar, the inner edge of which forms the mouth of the vessel. The upper part of the conical surface is provided with four small projections perforated horizontally with small holes, through which passed the cords by which the vessel was suspended.

The decoration is as follows:—A broad band runs round the conical shoulder, and is defined above and below by a horizontal outline. The band is divided into panels by incised vertical lines. The panels are alternately plain and decorated with two incised spirals united by their lower extremities, representing more or less accurately (Pl. XIV, 4) what appears to me a tulip accompanied with one or two pendulous leaves. The design is filled out with hatches, dots, or zigzags, and the ground is plain, or vice versa. The design is sometimes interrupted by the line which terminates the band, and is parallel to the sharp edge which separates the shoulder from the spherical body. The body has often a decoration different from that of the shoulder, and more care, as a rule, appears to have been bestowed on the decoration of the shoulder than on any other part of the vessel.

The same motive of decoration, with little variation in the details, is common to all vases designated as 'hanging lamps.' Also, the cover mentioned in the next class, decorated with horned quadrupeds on its concave side, had its convex side decorated in the same style as the hanging lamps. There is, however, one small hanging lamp, 9 cm. in diameter, decorated with studs: compare Section D, Class 9 (*e*).

Class 25. Dark brown ware, fine and thin (6 mm.), and covered with a slip. This class is represented only by one convex plate or cover, 25 cm. diameter, decorated on the concave side with lightly incised representations of buffaloes, and on the convex side partly plain and partly decorated with curvilinear bands crossed with parallel strokes. Plate XV: see below, *Note on Classes 25 and 26*.

Class 26. (*a*) Dark grey ware, 8 mm. thick. Convex plate or cover 18 cm. diameter, plain on the concave side, and decorated on the convex side with a plain disc at the centre from which radiate

six projections like the tentacles of a polypus. The ground is punctured with dots.

(b) Fine, polished, black, brown, or dark grey ware, covered with a slip, and decorated with curvilinear motives incised and filled with white. Fragments of plates or covers: there are a few covers of the same form and size, but plain.

Note on Classes 25 and 26. In these classes are included covers of various sizes found among the potsherds. Only three are whole. The others, having been pieced together more or less completely, give a sufficiently clear idea of the shape and size. The shape is the segment of a sphere, and the diameter of the base in various specimens varies from 7-25 cm. The most interesting among them, and perhaps the most interesting object found at Hal-Saffieni, belongs to *Class 25*. It measures 25 cm. in diameter and 5 in depth, and consists of nine fragments which, having been pieced together, form nearly two-thirds of the whole cover. Notwithstanding the great care with which a search was made to recover the missing portions, our efforts have been fruitless. Four portions of another cover, decorated in the same style, were recovered. However, the portions are sufficient to convey a clear idea of the two important finds. This importance derives from the fact that they are the only pieces of Maltese pottery decorated with animals.

The convex part of one of the two covers is decorated with geometrical figures; that of the other is plain. The design consists of six ellipses distributed at a small distance from one another round the centre, and a series of twelve half ellipses having their vertices directed towards the centre, and terminating near the edge of the cover, which is marked off with a deep furrow.

The concave part is decorated with incised horned quadrupeds, apparently buffaloes. The horns are long and slender, some in the form of a lyre, others thrown backward on the body like the horns of a ram. The animals are of two different sizes. Five large ones, nearly 10 cm. long, occupy the central part of the cover, and are distributed near the circumference. The heads are so small that they are hardly distinguishable. The bodies are crossed with parallel strokes. The larger quadrupeds have on the lateral part of their body five small elliptical plain spots; the smaller animals have no such peculiarity.

Buffaloes with long horns, incised on stones, were found in South Oran in Algeria.* They are referred to in a letter by G. Schweinfurth written at Biskra,† and illustrated with several engravings, amongst which one represents a fight of two buffaloes, and another a buffalo with long horns.

It is a well-known fact that there existed in Algeria in the quaternary period a species of long-horned buffalo, the remains of which were described by Duvernoy‡ under the name of *Bubalus antiquus*. That species continued to exist in neolithic times, as appears from the incised stones described by Professor Flamand. The only species of buffalo living at present in Africa are the *Bubalus caffer* and the *Bubalus brachyceros*, but no resemblance exists between these species or any of those living in Europe or Western Asia, and that of the buffaloes incised on the cover found at Hal-Saflieni. The case is, however, quite different with the extinct prehistoric buffalo of Algeria; in fact, the resemblance of that species to the buffaloes incised on the cover from Hal-Saflieni is so striking, particularly in the form of the horns, that it justifies the inference that some relation existed in prehistoric times between the inhabitants of the Maltese Islands, presumably the builders of the megalithic monuments, and the Libyan population of North-West Africa.

Now that the theory of the Libyan origin of the first inhabitants of the Maltese Islands, originally conceived by Montelius and Sergi, is daily gaining ground, no one will fail to recognise the importance of this new link in the chain of evidence.

APPENDIX

Since the above was written, new excavations have been made at Hal-Saflieni, and other parts of the hypogeum are still being discovered. The sherds found so far are more or less similar to those discovered formerly, and belong to one or other of the twenty-six classes above described. But a large jar, which has been almost completely re-constructed from a considerable number

* Cf. *L'Anthropologie*, III, 1892, pp. 145-6; *Gravures rupestres*, by PROF. FLAMAND.

† *Zeitschrift für Ethnologie*, Berlin, 1908, pp. 88-95.

‡ *Comptes Rendus de l'Académie des Sciences* XXXIII. 1851.

of large fragments found in one of the new chambers, deserves to be put apart in a new class, as its style of decoration is composite, and partakes at the same time of those of *Classes 3, 7, 9 and 20*.

On a base of 13 cm. diameter it rises to the height of 42 cm. The body, nearly conical but slightly bulged, attains at the lowest part of the shoulder a diameter of 33 cm. The shoulder is of spherical curvature, and at the base of the neck the diameter is reduced to 30 cm. The neck has the form of an inverted cone, slightly concave in profile, with an upper base (31 cm. diameter) which forms the mouth of the jar. The average thickness of the clay is 9 mm. From the quality of the fracture it may be argued that the jar was constructed by horizontal zones or belts 10 cm. broad.

The decoration of the neck consists of incised double semi-circular lines reaching a distance of 11 cm. from the top. They are followed by a row of rectangular tongues of clay 15 mm. long and 10 mm. broad, applied round the shoulder. Above these there runs a row of pear-shaped hollows 12 by 6 mm., and after a small interval, at a distance of 18 cm. from the top, begins the principal decoration of the vase, consisting of horizontal rows of overlapping fish-scales, which cover the remainder of the body as far down as the base.

A MODERN GREEK FESTIVAL AT KORONI IN MESSENIA

By A. J. B. WACE

WITH PLATE XVIII

The modern village of Koroni, the centre of the deme of Kolonidhes, stands on the north side of a gently sloping promontory at the south-east corner of the Messenian peninsula of the Morea. The mediaeval castle of Coron, which, though chiefly famous as a Venetian stronghold, was also at different times in the power of Byzantines, Spaniards, and Turks, crowns the highest part of the promontory. Great round bastions, which seem to date from the time of its capture by Morosini in 1685, guard the eastern and western walls. The modern village straggles round the harbour on the north side below the lofty main gate exactly where Coronelli in his plan marks the *Borgo*.* The long southern wall, which with its square towers seems to belong to an earlier period, has at its foot a broad glacis, probably a later addition. Between the bottom of this and the sea is a modern church, the centre of a very remarkable cult. Fortunately, Mr. G. L. Cheesman, of New College, Oxford, and myself, were able to visit Koroni this year on the day of the festival, and obtained the following particulars.

During the year 1896 an old woman of the village dreamt that where the new church now stands, some *ikons* or sacred pictures lay buried, and that by them was a cistern with a flight of steps leading down into it. No such cistern was known, but the inhabitants, stirred by religious fervour, immediately began excavations, and the cistern was found almost at once and cleared of the earth that filled it. It lies behind the apse of the existing church. No *ikons*, however, could be discovered, and digging round about proved fruitless and was abandoned. Next year it was resumed and crowned with success: four *ikons*, which will be described below, were found. This miraculous discovery caused some excitement, and Koroni almost immediately became a pilgrim-centre. Pilgrimage

* Description géographique et historique de la Morée. Paris, 1687. Pl. II.

and pious offerings brought wealth, and in 1901 a large church was built on the spot and dedicated to the Virgin, Παναγία Ἐλεῖστρια, 'Our Lady of Mercy.' Since then the church and the festival, which is held on the day of the Ζωοδόχος Πηγή, April 3rd O.S. (i.e. 16th), have continued to prosper. The church has an income of five or six thousand drachmae a year, and is managed by trustees appointed by the demarch and the council of the deme.

On the day of the festival two steamers make special journeys from Kalamata to Koroni for the conveyance of pilgrims from central Messenia. It was by one of these steamers that we travelled. The voyage takes over two hours and a half, and we called to pick up passengers at the villages of Petalidhi and Longá. About mid-day, the steamer, which was decorated with a miscellaneous collection of tattered bunting, cast anchor in the harbour to the north of the castle. We landed, climbed through the village to the ridge west of the castle, and saw the festival before us. In front was the church, gaily decorated with small flags and sprigs of bay (fig. 1). To our left, at the foot of the glacis, was a row of booths where the pilgrims, service being now over, were feasting on roast lamb and various mysterious cakes, the vendors of which were doing a brisk trade. Near by, a stall, with cheap oleographs of the church and the *ikons*, catered for the pious. On the right, hanged on a rough gibbet and swaying in the breeze, was an effigy of Judas Iscariot. Round his neck was a string of white tinsel discs to represent the thirty pieces of silver, and in his hands a piece of printed paper. He was to be burnt in the evening at the end of the festival, which usually closes with a ceremonial procession of the relics through the village (fig. 2). Owing to the early departure of most of the pilgrims, this did not take place this year. We passed a few rough cells for pilgrims, where a nun lives who looks after the church, and reached the north door. Wound all round the outside of the church were twelve waxed skeins of thread for candle wicks. These are called *τάματα* (= *τάγματα*, 'vows') and are placed there in fulfilment of vows made during the illness of a child, relation, or favourite horse or mule* (fig. 3).

* Mr. DAWKINS tells me that he has seen such strings tied round churches in Cyprus to keep off meningitis. At Koroni there were only three or four skeins round the church last year, and this year there were more than usual. As there was an epidemic of typhoid fever at Koroni last year there may be some connection between the two ideas.

Within, the church was strewn with rush mats and branches of bay and myrtle, shewing that pilgrims had been incubating there. On one wall hung a row of women's dresses, the gifts of grateful visitors to the shrine. In the centre, by a candle-stand ablaze with votive candles, a small table supported a glass case decorated with bay and hung with small silver votive offerings, which contains the four relics. The two principal '*ikons*' are a worn bone crucifix, and a similar bone relief of the Virgin with the infant Christ. Both seem to be of western, perhaps Italian, work of about the eighteenth century. But owing to the numbers of the worshippers, who wished to kiss the glass lid of the case, we could not see them very well. The third is called St. Luke, and is, in fact, one of the so-called grotesque terra-cotta figurines of the Hellenistic age. It represents a nude, seated hunchback, and dates from the third or second century B.C.* The fourth relic is a square bronze Greek weight of the fourth or third century B.C., with the corners splaying out. It is inscribed ἀργυρῇ τρία, thus:—

Α Ρ Γ Υ
 Α Ρ
 Ι
 Ι
 Ι

These are all said to have been found close together, or not more than a yard or two apart.

We were then taken to see the place where they were found. Leaving the church by the south door, we descended a flight of steps leading to a crypt under the west end. This, which can only be entered from outside, was lit by lamps and candles, and strewn with rush mats, bay and myrtle, showing that incubation had taken place here also. Rock crops up in the floor, and on the north side also is a wall of rock. Here, under an overhanging point, is a kind of deep ledge, where the relics are said to have been found. Worshippers fasten their tapers and candles to its edge, and a lamp is always kept burning above it.

This is a brief description of the relics, of the church built to house them, and of the festival in their honour. It is surprising to see the devotion of the pilgrims, who often travel long distances.

* Cf. the bronze from Herbrechtingen. *Arch. Anzeiger*, 1890, p. 97.



FIG. 1. VIEW OF KORONI, SHOWING THE SOUTH WALL AND THE
NEW CHURCH OF THE VIRGIN.



FIG. 2. EFFIGY OF JUDAS BEFORE
THE CHURCH AT KORONI.



FIG. 3. VOTIVE STRINGS TIED ROUND
THE CHURCH AT KORONI.

It has seemed worth while to put this on record as an example, to show how easily a cult can spring up, which one might be tempted to regard as an ancient survival, and also because of the remarkable character of the relics themselves. Two are Christian, but they are graven images which the orthodox church should ban. The other two are frankly pagan, and it is astounding to see them venerated by Christians. But religious enthusiasm aided by ignorance can accomplish much.

SOME CHEROKEE STORIES

By JOHN B. DAVIS

[These Cherokee folk-tales were communicated by Mr. John B. Davis, of Chelsea, Oklahoma, to Professor Elton, of the University of Liverpool, in a letter from which the following sentences are extracted :—

‘Chelsea, Oklahoma, 6 July, 1908.

‘I enclose herewith some Cherokee stories They are genuine. I have not doctored them in any way The language is very figurative, and a literal translation would not be intelligible to anyone except a Cherokee, or some one very familiar with them.’

Mr. Davis is himself of Cherokee descent, and familiar with the Cherokee language, and has had lifelong opportunities of hearing and transcribing such stories among his own people.

Versions of most of these tales have already been published by Mr. Mooney in his monograph on the Cherokee people in the *Nineteenth Report of the United States Bureau of Ethnology*. Mr. Davis, however, had already made his collection before Mr. Mooney’s work appeared; and quite independently. Moreover, Mr. Mooney’s observations were principally on the Eastern Cherokees; those of Mr. Davis among their Western and much more unapproachable kinsmen. It has therefore seemed worth while to publish this second version, even at the risk of some repetition.—
J. L. M.]

I. *How the World was made.*

In the beginning, when everything was covered with water, the giants and the old powerful animals all lived up there, beyond the Dome of the Sky; but they were so crowded that they needed more room. One day they decided to find out what was beneath the dark, bitter, salty sea under the dome. The little Water-Beetle was sent to explore it. She skimmed the top of the water in every direction, but found no place to rest. After seven days she dived down to the bottom of the sea and brought up some soft mud,

which grew and spread in every direction until it formed the island we call the Earth. This island is floating in the sea, and is held in place by four great skin ropes which are fastened to the sky-dome. One of these ropes is fastened to the north side, another to the south side, and the others to the east and west sides of this earth-island. Some day, when the world is old and worn out, these ropes will break, and it will sink and again be covered with water.

When it was first made the earth was very wet and smooth and soft and flat. However, the animals were very curious to see it, and sent out various insects and birds to explore it. But because the earth was still soft, they found no place to alight, and went back. When it seemed to them that they could wait no longer, they sent the Great Buzzard. He was the strongest of all flying creatures, and the common buzzards we have now are imitations of him, but hundreds of times smaller. For four days he flew all over the world, but found no place hard enough to bear his weight. On the fourth day he became so tired of flying, that his wings touched the soft mud and scooped up great ridges. The other animals were afraid that the whole world would be mountains, so they called him back. That is why the Cherokee country is mountainous.

When the world had hardened, the animals came and lived on it for a while very happily, for everything was new then and not old and worn out as it is now. The old animals lived here until after man was made and given control of the earth. Then the animals we have now were created, and the old animals went back to the land beyond the Sky Dome.

The world was still very dark, so some conjurers put the Sun in a track so that she went across the earth from east to west. That was too hot for the animals, and one of the crawfish got his shell burned red, and several birds got their feathers scorched, and many animals got their fur burned black. The Sun Path was raised, a little at a time, until it was in the seventh height just beneath the Sky Dome, where it now is.

II. *How they got Fire.*

After the Sun was moved off, the earth got cold and many of the animals came very near freezing. When the Thunderers saw this

they stole fire from beyond the Sky Dome and put it in the bottom of a hollow sycamore stump on an island. The animals knew that the fire was in the stump, for they could feel the heat and see the smoke, and they began trying to get it out. First the Raven flew over to the island and seized a coal of fire, but it burned him and he dropped it with a shriek. So he was burned black and came back without any. Then the Blacksnake swam over to the island and crawled through a hole in the stump, but before he could get to the fire it had burned him black and he had to leave. Then some of the Owls tried, but the smoke blinded them and the fire burned rings around their eyes, and they came back without any. Then the Buzzard tried, but did no better and got the feathers burned off his neck. Then several other animals tried, but they, too, had to come back without any.

They were about to give up in despair, when the little Water Spider said that she would fetch it. She was so much smaller than any of the other animals that they made fun of her. She paid no attention to them, but spun a little bowl which she fastened upon her back. Then she went over to the island, walking on top of the water, which did not even wet her feet, and put a coal of fire in the bowl and brought it back with her.

We have always had fire since then.

III. *Why the Moon's Face is Dirty.*

The Sun is a young woman, who lives underground on the east side of the world, and every day she goes over the world in the Sun Path, which is overhead, just underneath the Sky Dome. The Moon is her brother, and lives under the west side of the world.

Once some men went to the edge of the earth, and saw the hole the Sun comes out through. She looked like a woman, and some of them said that she was pretty, but she was so bright they could not tell what she looked like. As soon as she came out, she commenced climbing up the Sun Path, and they could not make out her figure. This was long, long ago, and she is probably older now, but we must not say so while it is day, for she might hear us and give us sunstroke.

Long ago she had a lover who used to see her every night in the dark of the moon. She could not see his face, and he would not

tell her who he was. She was very curious to know his name, and decided to find out by strategy.

One night, while they were sitting by the fire, for it was winter, she put her hands in the ashes and rubbed them over his face. The next night, when the Moon rose, his face was covered with dark patches, and then she knew that it was her brother, the Moon, who had been courting her.

Angrily she set out after him, but he kept ahead of her, so that he was on the other side of the sky from her. He travelled at night and concealed himself by day. When he was compelled to travel in the daytime he made himself as thin as possible, and kept on the other side of the sky from her. He still does so, but she is no longer angry with him.

IV. *How they tried to Kill the Sun.*

The Sun had a daughter, who lived directly overhead, just underneath the Sky Dome. The old Sun used to stop at her house every day for dinner, and she stayed so long, talking to her daughter, that it was very hot on the earth, and many people became sick on account of it. One day, all of the chiefs and head men of all the seven clans held a council, and after much deliberation they decided to get rid of her, because she was killing so many people with the heat. They sent some men to the Land of the Dead, in the west, and asked the Thunderers,* who are always friendly to mankind, to help kill the Sun.

This the Thunderers at once agreed to do. They made medicine, and changed two men, who had fasted for seven days and seven nights, into snakes. One of them was the Spreading Adder and the other was the Copperhead. The Thunderers told them to wait for the old Sun just outside her daughter's doorway, and, when she started to go in, to strike her. When they reached the place, the two snakes had a dispute as to which should strike first and, when the old Sun came to the door, the Spreading Adder rushed past the Copperhead, and struck at the Sun first. The light blinded him, and he only spat out slime, just as Spreading Adders do now. The Sun went past him into her daughter's house. Then the Copperhead was very angry, because the spreading Adder had struck first, so he crawled off and would do nothing more.

* For the origin of the Thunderers see No. XXI below.

Things went on much as before on earth, only more and more people died every day of the heat, for the Sun was angry at them because they always looked pleasantly at her brother, the Moon, but made faces when they looked at her. It became so hot that the rocks cracked, the streams dried up, and the corn and pumpkins died in the fields.

Then the head-men held another council, and again sent to the Thunderers for help. The Thunderers made medicine again, and changed two more men into snakes. One of them was the Rattlesnake and the other was the great Ooktana monster. He was enormously large; his body was as large as a man's body, and he had a shining jewel on his head, and great horns like a deer.

The Ooktana and the Rattlesnake waited until the sun had gone inside her daughter's house. They they crawled up to the door, and agreed that when the old Sun came out the Rattlesnake should strike her, and the Ooktana should crush her by wrapping himself around her. After they had waited for a long time the Sun's daughter started out of the house, and the Rattlesnake, who had been coiled up waiting impatiently, struck at her and killed her before he noticed that it was not the Sun. When the Ooktana saw what had been done, he was frightened and angry. The longer he waited, the angrier he became, and years afterward he became so dangerous that the people prayed to the Thunderers, and they took him, with the other dangerous things whose names it is not even safe to tell, and put them in the land beyond the Land of the Dead; and they are there now.

When the Sun saw that her daughter was dead she went back to her home and hid her face and mourned.

Then no more people died on account of the heat; but because it was very dark many plants died. There were some plants that were powerful in medicine that were destroyed, and we do not have any like them now. The people could not see how to get around, except a little by moonlight, and all of the animals began dying, and the corn and beans were dying in the fields.

Then the Thunderers said that if they wanted the Sun to come back again, they would have to bring her daughter back from the Land of the Dead. Then seven conjurers, one from each clan, started for the Land of the Dead, after making medicine for seven

days. They carried a great chest with them, and each man took a corn cob that had been charred in a fire kindled by lightning.

It took them four times seven days to make the trip. After they left the country of the Cherokee, they came to the land where the dwarfs lived. They were funny-looking little men, with hair that hung down to the ground all around. Then they passed the place where Brass the Gambler lived. Then they came to the land where the Cherokee used to live when the world was new, and saw the place where the animals first got fire.* The stump was burned up, and the water around the island had dried up, either on account of the heat of the sun, or that of the fire, but the mound-like island was still there, only it was too hot to get close enough to see exactly what it looked like.

When they came to the Land of the Dead they saw all of the spirits dancing around a fire, just as they were accustomed to do at home. Some of the men recognised friends who had died, and spoke to them; but the ghosts did not seem to know them, and kept on with the dance.

When the Sun's daughter passed them, each one touched her, and after the seventh man had touched her, she fell down as if dead, and they put her in the box without the other ghosts even seeing them. When they started back, and had passed out from under the black slabs that cover the door of the Land of the Dead, she seemed to come to life and begged to be let out. The men would not let her out, for the Thunderers told them that if they opened the box they could not bring her back.

They kept on with her, and she continued begging to be let out. After a while she began asking for water, and some of the men wanted to give it to her, for she had been in the box several days without anything. The others would not allow them to open it. When they were nearly home she begged them to open the box and let in air, for she was smothering.

Then the men were afraid that she would really die, so they opened the box a little, and a Redbird flew out and flew away into the bushes. Then they looked into the box and saw that it was empty. That is how we know that the Redbird is the Daughter of the Sun.

* See No. II above.

When the Sun learned what had happened to her daughter, she sat down and wept, and would not be comforted. The people began to be afraid that her tears would drown the world, but they could not make her stop.

Then they took the Thunderers' advice again and sent for their handsomest young people to dance before her. She would hardly look at them at first, but when the drummer changed the tune, she looked up at them and smiled, and when she saw that they were sorry for her, she went back and travelled in the old Sun Path, and has always done so since then.

Her daughter no longer lives overhead, so she does not stop at noon now, as she used to.

V. *The Pleiades.*

Once, long ago, seven little boys, one from each of the seven clans, used to go every day to the town-house, and sing and dance. Their mothers scolded them, but it made no difference, and they kept on dancing.

One day their mothers told them that, if they liked dancing so much better than work, they should have no dinner. Then the boys went back to the town-house, and began dancing faster than ever, and they were singing a new and wonderful song which no one seemed to understand, and their hearts were light, for they had eaten nothing, and their bodies sat lightly around their ghosts. After a while one of the women looked out, and saw the boys dancing around above the ground. She was frightened and ran to them, but, before she could reach them, they were higher than her head. She seized a long stick, and tried to pull her boy down; he was the drummer, and was not so high as the others. When she pulled him, he sank into the ground at her feet. The other boys rose higher and higher, until they looked like stars. In a few nights the boy who had sunk into the ground joined them, but he was not so bright as the others, for when he went through the ground he became dirty.

A little plant rose from the place where he sank into the ground, and grew into the pine tree. Thus we know that the pine is great medicine, for it is kin to the stars.

VI. *The Race between the Terrapin and the Rabbit.*

When the world was new, the old animals could talk to each other, and had chiefs and warriors and conjurers just as men have now.

The Terrapin and the Rabbit were famous leaders, and were especially noted for their great cunning. The Terrapin was a mighty conjurer as well as a powerful warrior and wise councilman, and he was always boasting of the great things he had done. One day he met the Rabbit and was telling how fast he could run. The Rabbit did not believe that the Terrapin could beat him, so they agreed to run a race to see who was the swifter.

The Rabbit's friends told him to beware of the Terrapin for all of them knew that he was a mighty conjurer. The Rabbit only laughed and told them that he could surely outrun the Terrapin, for, he said, 'You know that he cannot run. He can only crawl.'

On the day appointed for the race all the animals came to see it. They were to run over four mountain ridges, the last of which was to be the goal.

When the word to start was given, the Rabbit went off, running slowly, and the Terrapin crawled away into the waving grass. When the Rabbit came to the second ridge he saw the Terrapin crawling down on the other side ahead of him.

This surprised him very much and he ran faster, but it did no good, for when he came to the third ridge he saw the Terrapin crawling over it in front of him.

This enraged him and he tried to run faster, but he could not, and when he got to the bottom of the next valley, he was so tired that he could run no further and fell down fainting, and blood ran from his mouth. When the other animals reached the goal, the Terrapin was there ahead of them, and was declared winner.

He did not really win the race though, for he asked three of his brothers, who looked just like him, to help him. He placed one of them on top of each of the first three ridges, and posted himself on the fourth. When the Rabbit came up, the Terrapin's brother at the top of the ridge would crawl down on the other side and hide in the high grass. The real Terrapin placed himself on the fourth so that he could be where the animals stopped, and prevent their discovering the cheat.

VII. *Why the Turkey carries a Scalp.*

When the race between the Terrapin and the Rabbit was over, the Turkey-Gobbler said, 'I do not think that the Terrapin out-ran the Rabbit, for we all know that he can barely creep,' and he resolved to see if he could not discover the cheat.

One day the Terrapin was coming home from battle and had a fresh scalp hanging around his neck. The Gobbler said, 'That is not the way to wear it. You will spoil it if you drag it on the ground that way. Let me show you how well it looks on me.' Then the Terrapin gave the Gobbler the scalp, and he tied it around his neck and walked up and down rapidly, and said, 'See how well it looks on me.' Then he walked on faster and said, 'It looks much better on me than on you.' The Terrapin tried to keep up with him, and repeatedly asked for the scalp, but the Gobbler kept ahead of him. Then the Terrapin took his bow and magic arrows, and said, 'If you do not give me back my scalp I will shoot you.' Then the Gobbler ran off ahead of him and yelled, '*Go ree!* You cannot run! You are no warrior! You did not outrun the Rabbit!'

Then the Terrapin saw that his secret had been discovered, so he shot several cane arrows into the Gobbler's legs. They are still there, but he did not get his scalp back; and the Gobbler still wears it around his neck.

VIII. *How the Partridge got his Whistle.*

The Terrapin had a fine whistle that he was very proud of, and he was always blowing it and showing it to the other animals. One day the Partridge asked to blow it, and the Terrapin gave it to him. The Partridge began blowing it and walking around the Terrapin in a circle, and kept getting further and further away from him. Then the Terrapin asked for the whistle, for he was afraid that the Partridge would ruin it. The Partridge kept getting further and further away from him and said, 'I will give it back in a moment: I only want to see how loudly I can blow it.'

However, he kept getting further and further away from the Terrapin, and finally blew it shrilly and flew away, leaving the Terrapin without his whistle.

Then all of the animals knew that the Terrapin could not run, and that he did not beat the Rabbit.

IX. *The Race between the Deer and the Rabbit.*

Long ago the Rabbit was a mighty runner, and often boasted that he could beat the Deer. When the Deer heard of this, he challenged the Rabbit to a race and they let the other animals pick the time and course, as well as arrange for a prize for the winner.

It was agreed to have them run through a thicket, and the first one through was to have a prize, which was an elegant pair of antlers. A while before the race was to take place, the Rabbit slipped into the thicket and said that he was going to take a nap, and told them to call him whenever they were ready.

After he had gone, the Mocking Bird said, 'I don't believe that he is going to sleep. I think he is up to some mischief.' Then he quietly flew into the thicket, and saw the Rabbit busily cutting bushes and briars, so as to make a clear path through the underbrush. The Mocking Bird said nothing, but flew back and told the other animals. They agreed that, as the Rabbit had been trying to cheat, he should not be allowed to run; and they gave the antlers to the Deer, who wears them now. They thought that the Rabbit ought to be punished, so they made him keep on cutting brush; and he is still at it.

X. *How the Rabbit killed Flint.*

Long ago the animals were very much afraid of Flint, who lived up in the mountain, because he killed so many of them. They wanted to destroy him, but did not know how, for it was very dangerous for any of them to venture near him.

Several of them had tried to kill him, but they were very unsuccessful; in fact, most of them were killed in the attempt. After several of them had tried, the Rabbit, who was a bold leader, undertook the task. He fasted and made medicine for four days, and then he went up to the mountain where Flint lived. Near the summit he saw a queer-looking animal standing before a cave. It was larger than a deer and seemed to be made of bone or horn.

The Rabbit shouted 'Hello,' and he answered 'Hello.' The Rabbit had expected him to invite him in, but he did not, and he was afraid to go in alone anyway; so he said, 'Is your name Flint?' Flint said, 'Yes, that is my name.' Then the Rabbit said, 'How are your people?' Flint said, 'I have none.'

This was just what the Rabbit wanted to know, for he was afraid that Flint had a family that would revenge his death if he should kill him. All this time the Rabbit was trying to think of some way by which he could take Flint off his guard and kill him, but he could not think of any, so he said, 'My name is Red Liver, and I thought I would come by and ask you to come and see me some day.'

He would not tell his real name, for he was afraid that, if Flint knew that, he would try to kill him by sorcery, and he knew that Flint's medicine would likely be stronger than his; for Flint had killed more animals.

Flint said, 'I would go to see you, but I do not know where you live.'

Then Rabbit said, 'Why not come home with me and eat supper; we have just made a fresh pot of Kenutchie.'

Then Flint followed the Rabbit, for he really wanted to know where he lived, so that he could come and kill his family when the Rabbit was away from home. They went down to the Rabbit's home; and, as the weather was warm, they ate supper on the grass before the hole. When they had finished they lay down, and in a short time Flint was fast asleep.

The Rabbit called to him several times, to be sure that he was not shamming, and then he quickly picked up a stake and mallet that he had prepared beforehand, ran over to Flint, and drove it through him at one blow. Then he ran as hard as he could for his hole, but before he could reach it there was a mighty explosion, and Flint flew into thousands of pieces. One of them hit the Rabbit as he ran and cut off his tail. He stayed in his hole until everything was quiet. Then he stole out to take a look around and another piece hit him on the lip and split it. Flint had exploded and the pieces went in every direction, and that is why we find flint all over the world, but only in small pieces.

Flint finally had his revenge though; for, after men came, they killed animals with arrows tipped with pieces of flint.

XI. *Why the Terrapin's Back is Patched.*

Once the Opossum and the Terrapin went persimmon hunting. When they found a tree the Opossum climbed up and threw down persimmons to the Terrapin, who could not climb. A wolf saw

them and began snapping up the persimmons before they reached the Terrapin. When the Opossum saw that, he threw down a sharp twig, which the wolf snapped up greedily. The twig stuck in his throat and killed him. Then the Terrapin cut off the wolf's ears and took them with him. After that whenever he went into a house he would always use the wolf's ears for conneyhaney spoons. Soon the report was spread that the Terrapin had killed a wolf and was using his ears for spoons.

Then the other wolves met in council under the Old White Wolf, and decided to avenge the death of their brother. They caught the Terrapin and started to boil him in a pot. He only laughed at them, and told them that his medicine was strong enough to break all the pots in the world. Then they decided to burn him, and he told them he would put their fire out. Then they rushed at him and tried to tear him to pieces with their claws, but he drew back into his shell, and they could do nothing. Then they agreed to drown him. When the Terrapin heard this, he pretended to be terribly frightened and begged them to let him go. They paid no attention to his entreaties, but carried him down to the river and threw him in. When he slid into the water he yelled, and turned to the wolves and said, 'This is where I live.'

However, he was so glad to get away, that he did not notice a large rock that was in the river, and his shell struck against it and broke in many pieces.

He did not mind that though for he was a mighty conjurer, and sang a medicine song, and sewed himself together; but the seams still show.

XII. *Why the Woodpecker's Head is Red.*

Even in the old days, before men came, the Wolf and the Rabbit were enemies.

Once the Rabbit, who was a great boaster, said that he could whip the Wolf. This so enraged the Wolf that he determined to kill him. One day the Wolf saw the Rabbit in the forest, and ran after him to kill him, but the Rabbit, because he was so small and could easily pass through the thickets, outran the Wolf and safely reached his hole down in the valley by the river, even before the Wolf was through the first thicket.

When the Wolf reached the Rabbit's hole he was tired out, and

scratched and cut by the brambles through which he had been compelled to run. He could not follow the Rabbit into his hole, so he decided to wait at the entrance until the Rabbit came out. He waited several hours, occasionally shouting down the hole and challenging the Rabbit to come out, but he remained inside and taunted the Wolf, telling him that he was no warrior, and that he could not run, and laughed at the wounds he had received. After a while the Wolf became tired of his long watch and fell asleep. Then the Rabbit stole out softly, and took a large lump of soft clay from the river bank, and plastered it over the Wolf's eyes. When it had hardened he gave his war-cry and began beating the Wolf, who was not able to open his eyes on account of the clay. He could not see how to return the blows, and when he tried to run, he would continually run into rocks and trees. After the Rabbit had given him a sound beating, he left him lying half dead and went on his way.

Then the Wolf heard the Woodpecker hammering on a tree, and called to him: 'Would you not like to be red like the Sun's Daughter, the Redbird?'

'Yes,' said the Woodpecker, 'but I would not go through the terrors of the Darkening Land for all her beauty.'

Then the Wolf said: 'If you will clear the clay from my eyes, I will give you enough paint to colour yourself red.'

Then the Woodpecker cleared the clay from one of his eyes and was about to start to work on the other, when he remembered how crafty the Wolf was, and said: 'I will clear your other eye as soon as you show me the paint.'

Then the Wolf took the Woodpecker to a rock, in which there was a small streak of red paint. The Woodpecker took it, and after saying the proper charm, he painted his head. The Wolf promised to show him more, as soon as his other eye was opened. He claimed that he could find no more paint with that eye. The Woodpecker soon cleared the other eye, but the Wolf trotted away without showing him any more paint.

And that is why the Woodpecker's head is red.

XIII. *Why the Opossum's Tail is Bare.*

In the old days the Opossum's tail was large and bushy like the Fox's. He was very proud, and was always singing and boasting

about his beautiful tail. This made the Rabbit envious, for he had no tail, because Flint had cut it off; and so he decided to ruin the Opossum's tail.

There was to be a dance, and the Rabbit was sent out to invite all of the animals. When he came to the Opossum's place, the Rabbit admired his beautiful tail and told him that none of the animals had a tail so beautiful, and said that he ought to go and show it to the other animals. Then he offered to send over a barber to dress it for him. This pleased the Opossum so much that he promised to go to the dance.

Then the Rabbit went over to the Cricket's, who is such a good barber, and told him just how he wanted the Opossum's tail dressed, and then went on to tell the other animals. The Cricket went over and brushed the Opossum's hair and tail until he fell asleep. Then he cut off all of the hair up close to the tail, and, when he was through, he wrapped up the tail as the Opossum was accustomed to do.

That night when the Opossum went to the dance he found a special seat reserved for him, and the animals asked him to dance first. This pleased him very much, and he untied his tail, shook it out, and stepped out into the circle, and commenced dancing around the circle, keeping time with the drummer. When the animals saw his tail they all commenced shouting, but the vain Opossum thought they were applauding him and he commenced singing, after he had given the drummer the words of the song,

‘ Oh see my beautiful tail,
See how it sweeps the ground.’

As he sang this, he waved his tail backward and forward along the floor. Then all of the animals shouted again, but he kept on dancing, and raised his tail over his back and sang:

‘ See how it waves through the air,
See how fine its fur is.’

Then all of the animals laughed so long that the Opossum looked up, and saw that they were looking at him. Then he looked at his beautiful tail, and saw that it was clipped bare. That astonished him so that he fell over and grinned, just as opossums do to-day when they are surprised.

XIV. *The First Ball Game.*

After the animals had been on the earth a long time, they decided to have a ball game.

The Eagle and the Terrapin were the captains, and chose the players from the other birds and animals. The Terrapin chose first, and took all the strongest four-footed animals, and left only the birds and insects to the Eagle.

On the day appointed for the game, they met on the plain by the river near the Rabbit's house, and had a big dance. When the dance was over, the animals went down near the river and set up their goal, and the birds went to the end of the field nearest the forest and set up theirs. Because all of them were so small, the birds were very much afraid, and kept practising with the ball, throwing it to each other and darting about with it.

Of all the animals the Grouse was able to shout the loudest and clearest, and on that account he was a celebrated player. The Turkey wished to be able to shout as clearly, and went to the Grouse and offered to give him enough feathers to make a collar, if he would teach him a hallo. The Grouse agreed to do this, and after a few trials he said to the Turkey, 'I will drum on this log, and when you hear me, shout as loudly as you can.' The Turkey was so excited, when the time came to hallo, that he could do nothing but gobble, and he still does that whenever he hears a noise. The Grouse demanded his feathers, and the Turkey pulled enough feathers from his head and neck to make a collar for him.

The animals, on the other hand, did not practise any, but spent their time boasting of how they would beat the birds. The Terrapin and the Rabbit had dozens of plans for outwitting them, and had agreed on several signals. The Deer and the Wolf were bragging of how they could outrun all the other animals, and were telling how they would taunt the birds when the game was over.

Just before the game began, two little animals went over to the birds' end of the field. When they got there, the bird captain asked them what they wanted, for he thought they would try to spy for the animals. Then these animals said that, because they were so small and weak, the other animals would not let them play, and they asked the birds to let them play on their side. The bird

captain was about to refuse to let them, but, after talking with some of the others, he decided to let them play. This pleased the other birds very much, for their side was so weak that they needed all of the help they could get.

They did not know what to do then, for these animals had no wings, and could not run fast enough to be of any help to them. After talking it over, they decided to make wings for them, and some of the birds pulled out feathers for that purpose.

They could devise no way of fastening the feathers together, and were about to give it up, when someone thought of the drum they had used in the dance. They got it and cut a pair of wings from the head of it. They fastened these to one of the animals, and made the Bat. Until then the Bat had no wings, and lived in a hole in the ground like a gopher.

They threw the ball to him, and made him catch it and fly around with it, darting backwards and forwards so swiftly that he could not be caught.

It was then nearly time for the game to begin, and they had no more leather, nor any time to get any, and were about to leave the other animal out of the game. He cried and begged to be taken in, and that made the Hawk and the Eagle so angry that they took hold of him and were about to pull him in two. Soon his skin stretched out between his fore and hind legs, and they saw that they had made wings for him in that way, and let him go.

Then the signal was given, and the Flying Squirrel, for that was the animal they had made by stretching his skin, caught the ball and quickly ran up a tree with it, and gave it to one of the birds. The birds passed it from one to the other until the Bat got it. The animals were so amazed at the appearance of these new creatures that they could not play well, and the Bat managed, by dodging quickly from one side to another, to avoid their clutches, and kept out of the way of even the swiftest animals, until he threw the ball over the animals' goal, and won the game.

The Terrapin was so ashamed of being defeated, that he would hide in his box whenever he saw anyone coming, just as the terrapins do now.

XV. *Why some Animals can See at Night.*

The animals that now inhabit the earth are only weak imitations of the old animals that lived here before men came. When they were first made they were told to keep awake, and fast for seven days and seven nights. They tried to do so, but every day some would get hungry and sleepy, and either eat something or fall asleep. On the seventh night, only the Panther, the Owl, and a few others were awake. Then, because they had done as they were commanded, the old animals rewarded them by making them able to see at night, and allowed them to eat the other animals and birds for food.

Among the plants, the Holly, the Cedar, the Laurel, and the Spruce were the only ones that kept awake, and to them was given special power in medicine, and they were allowed to wear their leaves all winter to protect themselves from the cold. Some plants and animals we have now were not made until after Man was created. There were no pine trees then,* nor any fruits or berries, nor any bears, rattlesnakes, or adders.

XVI. *The Origin of the Bears.*

Once there was a mighty famine in the Cherokee country. They raised no corn or beans, and the pumpkins dried up in the fields. All of the animals left the country, for there was nothing there for them to eat, and the people had begun to suffer. At that time there was a boy that would go away into the mountains and stay for days at a time. His family tried to make him stay at home, but he would run away from them, and not return until after night. One time he went and stayed seven days without eating any human food. Then when he came back, they noticed that hair was growing out all over his body. This frightened them, and they tried to persuade him to stay at home. Then he said, 'I am becoming unlike you; the things you like to eat are not the things I like. Corn and beans are scarce here in the settlement, but back in the mountains the mast is knee-deep. I am going back there to live, and it would be better for you if you would come too, for there we always have plenty to eat, and do not have to work, and here you always have to work, and do not always have plenty to eat.'

*For the origin of the Pine-tree see No. V. above.

The members of the family talked it over, and decided to go. First they fasted and prayed for seven days, and then they made big medicine and started off together. Their friends came and begged them to stay at home, but they said, 'No. We are going back into the woods, and when you are hungry you can call us and take our flesh, for we will live again if you cover our blood when you kill us.' Then they taught them the songs to call the bears, and took leave of them.

When the people looked again, they saw a drove of bears going into the woods.

And that is what became of the people of the Bear Clan. The bears used to be Cherokee, and that is why we do not even have to ask their pardon when we kill one.

XVII. *The Race between the Crane and the Hummingbird.*

Long, long ago, in the days before the Unakees, the white men, came, there lived a beautiful woman, and her name was Ailsie, and she was loved by the Crane and the Hummingbird.

She was tall, slender, and very beautiful; and, as she was the only daughter of the town-chief, she had many strings of beads, and bracelets, and breastplates carved with the old magic symbols and charms that the Cherokee wore before they came from the old country.

Ailsie really loved the Hummingbird, but her father wanted her to marry the Crane, who was a powerful warrior. She did not want to disobey her father, so she said that she would marry the one who could fly the swifter.

At first the Crane objected to this; for, as everyone knows, he flies very slowly, while the Hummingbird is able to dart about very swiftly. At length he agreed to it, when he saw that all of the others were in favour of the trial.

It was arranged for them to fly around the edge of the Earth-circle seven times. When the signal to start was given, they flew off together, but the Hummingbird soon passed the Crane and finished the first circuit. He passed the Crane four times, but on the fifth circuit the Crane overtook him and soon left him so far behind that although he could fly faster than the Crane, he was never

able to come up with him again ; for the Crane was very strong, and could fly by night as well as by day.

When the race was over, and Ailsie saw that the Crane was the victor she resolved to remain single rather than marry such an ugly husband. Her father was delighted with the result of the race, and told her that she must marry the Crane or be killed. She begged to be left alone for seven days, and said that she would either marry the Crane or die at the end of that time. They granted her this request and she fasted and prayed for seven days, and at the end of the seventh day she was turned into a Water Woman, and she still lives in a deep hole in the Etowah River, for people have seen her playing in the bottom of deep pools ; but she always vanishes before they can tell exactly what she looks like.

XVIII. *Why the Mole has to Hide.*

Once a man loved a girl, who did not like him. Whenever he would try to approach her she would turn away from him in disdain. He brought her fruit and trinkets, but she would have nothing to do with him. Then he went to the conjurers, and they tried to make the girl love him, but they too were unsuccessful : her medicine was stronger than theirs. At last the man was so discouraged that he resolved to kill himself. While he was trying to think of the least painful way of dying, the Mole came along, and, seeing him in such trouble, offered to help him.

After the man told his story, the Mole, who at that time did not live underground, dug a tunnel, and at night while the girl slept he stole her heart. He brought it to the man and told him to swallow it.

The man did as he was told, and when the girl awoke she felt a longing for the man she had despised. As the day went on her love for him increased, until she thought she would have to go to him. She started, but it seemed that she could not walk fast enough. Then she ran to him, and told him that she loved him and wanted to be his wife. Soon they were married, and when the conjurers learned that the Mole had caused it, they were jealous and were afraid that he would furnish all the love-charms, so they ran after him and tried to kill him. He ran into his tunnel to get away from them, and has been afraid to come out since then.

XIX. *Why the Pheasant Drums.*

Once a Pheasant heard a woman beating corn, and went to the place where she was and, after watching her for a few moments, he said, 'I can do that too.' The woman laughed at him and he went off into the woods and, perching himself on a hollow log, beat his wings against it, and in that way tried to make the woman think he was beating corn.

He still does it, when he hears anyone coming.

XX. *The First Quarrel.*

After all of the animals on earth were made, man was created and given dominion over them. The animals were shut up in a cave, and when the man wanted one, all he had to do was to uncover the cave, and select the one he wanted. The first man lived for a long time by himself, but he was so lonely that a wife was given to him, and for a long time they lived together very happily.

One day they quarrelled, and the woman went off angrily towards the East Land where she had come from. Her husband followed her at a distance, alone, sorrowful, and silently grieving, but the woman kept on and would not even look back. The Sun saw the man's sorrow and had pity on him, and asked him if he was still angry with his wife. He replied that he was not. Then the Sun asked him if he would like for her to return, and he immediately said that he would. Then the Sun made a patch of fine huckleberries grow up before her. They were the first ever seen, but she scarcely looked at them, but hardened her heart and went on. Then the Sun made trees filled with service-berries and she looked at them, but did not stop, nor turn her head towards her husband. A little further on the Sun caused a patch of fine ripe blackberries to grow, but she did not stop for them either. Then she saw a grove of persimmon-trees loaded with the golden fruit, but she passed them too. Then a tree filled with ripe paw-paws grew up, but she paid no attention to it and went on her way.

Finally the Sun made a patch of ripe red strawberries spring up before her. Then, as she had been walking all day, and was hungry, she stooped down, and picked some, and ate them. While she was eating them, she thought of her husband, and remembered all the good things he had done for her, and thought of all the kind

things he had said to her, and such a longing came into her heart that she wanted to go back to him. She turned and looked in the direction from which she came, but could not see him. She tried to harden her heart and go on, but it was growing dark, and she was very lonely; for those were the only two people on the Earth Island.

She waited longingly for her husband, but could not see him, and she was afraid that he had not followed her, and she began crying. Then when she looked again she saw him coming, and her heart was so filled with love, that she hastily picked some of the ripest berries and ran back to meet him. He received her gladly, and they walked back together in the twilight.

In that way ended the first quarrel and it was a good thing too; for if they had not quarrelled, we would have had no fruits. There were none on the earth until after then, but we have always had them since then.

XXI. *How Sin came.*

After the first man's wife returned to him they lived together for a long time, and had two sons. The man was able to provide for his family very easily. Every day he went into the woods, and soon he would return with a deer, a turkey, or some other game. His wife would go into a thicket with her basket, and would soon return with it filled with corn or beans.

One day after their father had brought home a fine deer, the elder brother said, 'I have been all over the mountains, across the valleys, and over the streams, but I have never seen anything like that. I wonder where he gets them.'

'I do not know,' replied the younger brother; 'nor can I tell where the corn and beans come from. I have searched through the thicket where our mother goes, but have found nothing like them.'

'Let us find out where they get them,' said the elder brother. 'You follow our mother, and I will follow our father, and we will see where they get these things.'

So that day when the man went into the woods the elder boy followed him. The man went over a ridge, and rolled away a stone from the mouth of a cave that was on a steep hillside. He went in and in a few moments he came out carrying a fat buck over his shoulder. The boy concealed himself until his father had started home, and then he tried to roll away the stone that

covered the mouth of the cave. At first he was unsuccessful and after several futile attempts was about to give up in despair. Then he saw a pole lying on the ground, and thought he would use it for a lever. The pole was from a medicine-tree, and when he put his weight on it he managed to move the stone slightly. The stone seemed to be held by some supernatural power, and, though he was able to move it in its bed, he could not lift it from the hole. He made a mighty effort and put his whole weight on the pole, and the stone rolled from its bed. When it started he could not stop it, and it rolled to the bottom of the valley. As soon as the hole was uncovered large numbers of all kinds of animals began rushing out past him. There were animals that were harmful, as well as those that were useful; snakes, birds and insects; deer, turkeys, ants, eagles, rabbits, flies, squirrels, and all kinds of creatures rushed out past him before he could stop them. He tried in vain to frighten them back or to cover the hole. Soon, however, all of them had escaped, and the cave was empty.

The other boy followed his mother into the thicket and saw her place her baskets on the ground and dance before them. Soon the baskets were filled with corn and beans.

That evening while they were eating their father told them that he knew what they had done, and told them that he could no longer help them, and that he must die. He said, 'Now you will have to hunt through the woods, and may not always find enough to eat. The gnats and scorpions and snakes will annoy you and kill you. This would not have happened if you had not tried to find out what you should not know.' Then he made them bows and arrows and blow guns, and taught them how to hunt.

Then their mother said, 'I too must die and leave you, and when I am dead, clear a field, and drag my body all over it seven times, and corn will grow in it. Keep a clear path to the house so that the corn will come to you and not go to the woods.'

Then the old people died, and the boys did as they had told them to. After their parents died, the boys commenced growing old, and tired easily of the work in the field and of hunting. Then they decided to go to their parents. The elder brother shot an arrow towards the West, and it came back; so they knew that their parents were not in that direction. Then they shot another to the

North and it came back too. Then they shot it to the South but still it came back. Then they shot it to the East and it did not come back and they knew their parents must be in the Sun-Land.

Then they started out in that direction and after seven times four days they came to the edge of the world and to the place where the Sun comes out. They sat there and waited overnight; then the Sun raised up the Sky Dome, and crawled out, and held it up until they went through. On the other side they found their parents, who were very glad to see them. They stayed with them a while but were afterwards sent to the West. They are there now, and are the Thunderers.

For a long time people came very near starving, because they did not know how to grow corn, and were ignorant of hunting craft. Then they prayed to the Thunderers, and they taught them the magic songs that would call the deer. Afterward the people became more skilled in hunting, and the songs are now forgotten.

XXII. *How Disease started.*

For a long time after the animals were turned out of the cave under the mountain, they lived at peace with man and were friendly to him. So long as he only killed animals for food, and begged the animal's pardon, there was no hard feeling between them. Before long, however, men commenced killing animals just for sport, and trod the smaller and weaker animals underfoot without giving them the least consideration.

Finally the animals thought that they could stand it no longer, so they decided that they ought to declare war against mankind. First the bears met to deliberate whether they should declare war against the human family. The Brown Bear, who was one of the principal speakers, said, 'If he goes on killing us in this careless way, soon there will be none of us left. He has forgotten that we are his kinsmen, that we used to be men.'

Then the Old White Bear, who was the head chief, said, 'What weapons shall we use against man?' Then the Black Bear said, 'We will use the ones he uses against us.' 'What are they?' asked the chief. 'Bows and arrows,' said all of the bears. 'What is the bow-string made of?' asked the chief. 'Of our entrails,' said the speaker.

Then one of the bears sacrificed himself to make bow-strings, and another procured some pieces of *Bois d'Arc* wood to make bows, and some canes for arrows. After they had made some bows they selected some of their number for marksmen.

One of the bears tried to shoot but he could not hit the mark, because his claws caught in the string. Then one after another tried it, but with no better success.

Then one of them cut off all of his claws but one, and hit the mark. Some of the others wanted to have their claws trimmed too, but the Old White Bear said, 'No. We will need our claws to climb with. Even if enough of us should die to give bow strings to the rest of us, the men would soon defeat us, for they are more skilled in the use of the bow, and know a great many conjuring songs.' Then the meeting broke up without having reached a decision. That is why the bears are not now at war with us, and why we do not even have to ask their pardon when we kill one.

Next the deer met in council under the Little Deer, their high chief, and they decided to give rheumatism to anyone who killed one of them without first asking his pardon.

Then all of the small animals met together and each of them named and described a disease that he would give to any one who killed one of them.

That is why we are so often sick without knowing the reason why, for the earth is full of small animals, many of them too small to be seen, and we often kill many of them without knowing it.

The Ground Squirrel was the only animal that was not in favour of warring against man, and when the other animals heard of that, they fell upon him, and tore great strips from his sides. The scars are there yet.



When the plants heard what the animals had done each of them agreed to give man help. Every plant is good for medicine, and if we only knew what plant to get, we could cure any disease.

THE EGYPTIAN CULT-OBJECT AND THE 'THUNDERBOLT'

BY PROFESSOR P. E. NEWBERRY

WITH PLATE XIX


The prehistoric forms of this cult-object resemble a double-headed dart (fig. 1), which is sometimes figured with two (figs. 2, 3, 5) or three (fig. 4) sets of barbs to each end. Two of the predynastic forms have also arrow-like heads (figs. 6 and 7), and two have rounded heads (figs. 8 and 9). The rounded-head form (figs. 10 and 11) is commonest during the Old Kingdom, but the pointed form (fig. 12) also occasionally occurs. With the Middle Kingdom a slender pointed form appears (fig. 13); this is general also during the New Empire and later (fig. 14). When the colouring of the object is preserved it is generally blue on Old Kingdom monuments, and red or black on those of the New Kingdom and later.



Of the true nature of this curious cult-object nothing is at present known. Professor Petrie has suggested (*Koptos*, p. 9) that it was perhaps a garland of flowers; but a comparison of all the forms shows that such an identification is not possible. It is always used in hieroglyphic inscriptions as a symbol of the god Min. Already at the time of the First Dynasty this deity had become anthropomorphous, and we see him a standing ithyphallic figure wearing two plumes upon his head, with his right arm raised and balancing (not *holding*) in his right hand the so-called flagellum. The attitude is remarkable, and suggests that he is in the act of throwing the flagellum, which, it should be observed, is composed of a group of , or -objects threaded on wire.* He is never, so far as I am aware, represented, as other Egyptian anthropomorphous deities are, wearing his cult-object upon his head. Now Min, as is beginning to be recognised, was the original form of Amon.† Amon was Lord of Heaven and God of 'Thunder.'‡ According to an Eleventh Dynasty inscription in


* See the fine specimen found by de Morgan at Dahshûr, *Fouilles à Dahchour*, 1894. Pl. xxxix.

† ERMAN, *Handbook of Egyptian Religion*, p. 19.

‡ Breasted, *Ancient Records IV*, 557-591. *Wenamon*, 6, 19.

the Wady Hammamat,* it is said that Min appeared in the rain-storm—'rain was made, the forms of this god appeared, his fame was shown to men and the highland became a lake.' This, I think, can only mean that the god appeared in a thunderstorm, for lightning and thunder invariably accompany rainstorms in Upper Egypt. If this be so, then the particular form in which Min appeared may have been lightning with its accompanying thunder. It is possible, therefore, that the cult-object  which is Min's symbol may have been supposed to be a 'thunderbolt.'


But what were 'thunderbolts'? Material thunderbolts do not fall from heaven, nor are aerolites ever of this  form. To the present day, however, the conception of the 'thunderbolt' is essentially one of a *bolt*—that is, a *dart*—and lightning itself is often represented as a flash with barbed head. There are three classes of objects which have long been believed to be 'thunderbolts.'† These are (1) flint arrow-heads, (2) polished stone Celts, and (3) certain kinds of fossil Cephalopoda, *Belemnites* (fig. 19) and *Turritiles* (fig. 20). The earliest examples of the  object clearly represent the double-headed arrow (figs. 1-5); the predynastic form which is found on the Archaic Statues of Min at Coptos (fig. 7) closely resemble four flint arrow-heads. The forms appearing on the Louvre Slate Palette (fig. 8), and on the Scorpion King's mace-head (fig. 9), suggest a group of stone celts, though the Old Kingdom examples (figs. 10 and 11) are much conventionalised. One of the Old Kingdom (fig. 12), and all the Middle Kingdom and later forms (figs. 13 and 14), bear a strong resemblance to a pair of belemnites. Thus it will be seen that all the Egyptian forms of this cult-object can be referred to objects which have been, from time immemorial, regarded as 'thunderbolts.'

The famous 'thunderbolt' of Zeus was of precisely the same form as examples of the  cult-object of the Middle Kingdom and later. In fig. 15 I give a drawing of one of these 'thunderbolts' represented in the hand of Zeus, from a bronze statue of the late Sixth Century from Dodona, now in the Royal Museum at Berlin.‡ In fig. 16 I give also a drawing from an early

* GOLENISCHEFF, *Hammamat*, XIV; LEPSIUS, *Denkmäler*, II, 149f. l. 3.

† SIR JOHN EVANS, *Ancient Stone Implements*, 2nd ed., p. 62 sq.

‡ Published in the *Burlington Magazine*, Vol. XVI, p. 87.

Imperial Coin of Seleucia, which shows a 'thunderbolt' as a cult-object resting upon a cushion upon a stool. Both these examples give an almost exact counterpart of the Egyptian sign. In most cases the Greeks* and Romans represented the object emitting lightning flashes (fig. 17), or embellished with wings (fig. 18), or like a sword-blade issuing from a lotus flower; but the essential part is the bolt itself, which, if shorn of all embellishments, is reduced to an object similar to the  in every particular. When the Egyptian cult-object and the Greek and Roman 'thunderbolt' are placed side by side, we can hardly doubt that they really represent one and the same object.

Titles and References for Plate XIX

1. Prehistoric Vase, Leyden A.III.69. Cf. Petrie *Koptos* LXVI, 8.
2. „ „, Berlin 18641.
3. „ „, Berlin 14317; cf. New York M.M.A.07, 228, 126.
4. „ „, Cairo Museum.
5. „ „, Liverpool Institute of Archaeology.
6. Slate Palette, Mace and MacIver, *El Amrah*.
7. Archaic Figure of Min, Ashmolean and Cairo Museums.
8. Slate Palette, Louvre.
9. Mace-head of the Scorpion King, Ashmolean Museum.
10. Methen, Abusir, etc.
11. Antef Coffin, Cairo Museum, 28004.
12. Pyramid Texts.
13. Sesostri I, Koptos.
14. Sety I, Nome List, Abydos Temple.
15. Bronze Statuette of Zeus, Berlin; cf. the ancient Olympian bronze in Curtius *Olympia*, Vol. IV, Pl. VII, fig. 45.
16. Imperial Coin of Seleucia; cp. *B. M. Catalogue of Greek Coins*, Galatia, etc., Pl. XXXII, 6-10.
17. Ptolemaic Coin in Dattari Collection.
18. *B. M. Catalogue of Greek Coins*, Galatia, etc., Pl. XXXII, 4.
19. Belemnite.
20. Turrilite.

* See PAUL JACOBSTHAL, *Der Blitz in der Orientalischen und Griechischen Kunst*, Berlin, 1906.



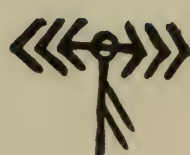
1.



2.



3.



4.



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6.



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8.



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10.



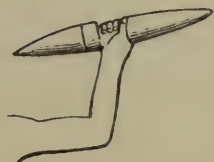
11.



12.



13.



15.



14.



19.



20.



18.



16.



17.

MEROË

By PROFESSOR A. H. SAYCE.

The excavations carried on by Professor Garstang last winter have settled once for all where Meroë, the Ethiopian capital, once stood. They have also settled the site of the Temple of Amon, where the Kings of Ethiopia were crowned, and shown that I was right in identifying certain walls, which had been supposed to be those of a city, with the walls of the Temple enclosure. The pyramids of Meroë, first discovered by Cailliaud, in 1821, are proved to stand in the same relation to the city that the pyramids of Giza and Saqqara stood to Memphis, and the geographical confusion between the city and the island of Meroë is finally cleared away. The 'island of Meroë,' that is to say, the district between the Atbara and the Blue Nile, took its name from the city.

The site of the city was well chosen. It lay on the bank of the Nile between the Fifth and Sixth Cataracts, where there was a long stretch of navigable river from the land-route which struck across the Bayuda Desert from Berber to Napata, so as to avoid the Fourth and Fifth Cataracts, up stream to the Southern land-route, which ran from Wad Ben-Naga (which we can now identify with the ancient Tolles), a little north of the Sixth Cataract, to the Blue Nile, and from thence across the mountains of Abyssinia—the Punt of the Egyptian conqueror, Thothmes III—to the Red Sea. The town was built on the edge of a fertile *khôr*, or wady, which extends far into the interior, and is filled during the rainy season with water and vegetation. The northern trade-route from the Red Sea, which crossed the Atbara, passed by the side of it to the Nile. Immediately north of the city are hills of sandstone, with extensive quarries. The harbour of the city was accounted a good one, sheltered as it was from the north-west wind by the island of Tadu. Until the present year the first mention of the name of the city, under the form of Baruat, has been in the inscriptions of the Ethiopian Kings, Hor-si-atef (of uncertain date) and Nastosen, the conqueror of the army sent by

Cambyes against Ethiopia. In the time of Hor-si-atef, who built a temple there, it had been unsuccessfully attacked by the Rehrehsa, and Nastosen was a native of the place. In one of the Meroitic hieroglyphic inscriptions, however, which we found on the walls of the Sun-temple, the name occurs as Mer, with a possible play upon the Egyptian *mera*, 'a port,' and since we also found the remains of a stela of Aspelut (B.C. 625) at the same spot, we may conclude that the city, with its Amon-temple, was already in existence. Elsewhere the name is written M-r-'wa-a. The pottery discovered in the tombs seems to carry us back a century or two earlier.

At a period still undetermined Meroë, together with its sister cities, suffered at the hands of some hostile power. Its temples were destroyed, including the great Temple of Amon. The period of destruction was followed by a period of reconstruction under Amon-neteg and his queen Amon-tari, and son Neteg-Harkhuti, who restored the Temple of Amon at Meroë, rebuilt the Temples of Wad Ben-Naga, and erected Temples at Naga and Amara. In the Sun-temple repairs had been undertaken by Ark-Amon, the Ergamenes of Diodorus, who had been educated at the Court of Ptolemy Philadelphus. The mission sent by Nero to explore the sources of the Nile reported that at that time the city had fallen into decay, and contained but few houses apart from the public buildings. It had, however, once supported 200,000 soldiers and 4,000 artisans, and when the Roman explorers visited it it was ruled by a queen named Candace, who had had forty-four predecessors on the throne (Pliny, *Hist. Nat.*, vi, 29).

Ergamenes is usually credited with having introduced Greek culture into the country. Some of the pottery, however, betrays the influence of Naukratis, and there are evidences that Ethiopia as far South as the Blue Nile, if not farther, was known to the Greeks before the Ptolemaic age. Herodotus tells us that the ambassadors of Cambyes sent to the Ethiopian King were instructed to enquire about 'the Table of the Sun,' in a meadow 'in the suburbs of the capital, where cooked meats were set each night.' Our discovery of the Sun-temple has revealed the origin of the story, as the building stands on the edge of the *khôr*, or 'meadow,' which borders the city on its south side, and the topmost terrace of the Temple, with the altar on which the offerings were placed, lay open to the sky. The

story seems to be connected with the Homeric legend* of Zeus and the other gods feasting every year for twelve days among 'the blameless Ethiopians.' At all events, the *Iliad*† tells us how the cranes of Asia Minor year by year made their winter home beside 'the ocean streams' in the land of the Pygmies, who, so far as we can judge from the early Egyptian notices of them, never extended further North than the Blue Nile. We may, therefore, conclude that the Island of Meroë was already known to the Asiatic Greeks of the Homeric age. In the Ptolemaic period the Greeks must have been pretty well acquainted with it: descriptions of Ethiopia were given by Dalion, Aristocreon, Bion and Basilis, and Simonides the Younger resided for five years at Meroë.

The beautiful 'biscuit-ware' of Meroë shows how strongly Roman influence must have been felt there. Some of the ware resembles the so-called 'Samian,' while the stamped pottery seems distinctly due to Roman inspiration, and can hardly be earlier than the second century A.D.

A fragmentary Greek inscription which I obtained on the site in 1909 indicates when and how the city fell. The inscription turns out to be a record of Ta-zêna, the King of Axum, who has left us an account of his conquest of Kasu, or Ethiopia, in an inscription still existing at Axum. He there states that after capturing and destroying Alva and Darô, 'the stone-towns' of the Kasu, South of the mouth of the Atbara, he 'set up his throne' in an island opposite the confluence of that river with the Nile. Excavation on the spot last winter brought to light a stone platform, raised on the top of a high embankment of stone, and as I could find no trace of either pottery or human habitation it is reasonable to suppose that the throne of the conqueror had been placed there. Ta-zêna was a pagan at the time of the conquest, and our excavations on the site of the Temple of Amon have shown (1) that the site was not again occupied after the destruction of the city, and (2) that up to the time of the destruction Christianity was unknown there. It would seem that the Kings of Axum had for some time claimed suzerainty over Ethiopia, since Aeizanas (A.D. 356) calls himself King of Kas.

Kash, the Hebrew Kush, was the Egyptian name of the Sudan,

* HOMER, *Iliad* I, 423-5; *Odyssey*, I, 22-6.

† HOMER, *Iliad* III, 3-6.

and included the greater part of the country as far South as the Blue Nile. Its first capital was Napata, under Jebel Barkal, which seems to have been an appanage of the Temple of Amon at Thebes. After the rise of the Twenty-second Dynasty in Egypt, the Theban priests retreated to Ethiopia, and there established a theocratic monarchy of their own, the supreme god being the ram-headed Amon of Thebes. With the decline of the Twenty-second Dynasty, the Ethiopian Kings began to assert their ancestral right to the sovereignty of Egypt—a right which was recognised by the Theban priesthood; the valley of the Nile was overrun by their armies, and finally Sabaco succeeded in making himself master of Egypt, and founding the Twenty-fifth Dynasty. His second successor, Taharqa, posed as the representative of Egyptian nationalism in its struggle against the Assyrians, and made alliance with the Jewish Kings. Esar-haddon's ambassadors came to Napata; it may be, therefore, that Meroë had not yet been raised to the rank of a capital.

On the Meroitic monuments the ruling class represent themselves with high foreheads, straight noses, thin lips, and sun-reddened skins like the Egyptians or the natives of Punt. The inscriptions found last winter have enabled me to determine the values of most of the letters in the Meroitic hieroglyphic alphabet, as well as the suffix of the plural. This is *gü*, which bears a striking resemblance to the suffix *-gu*, which denotes the plural in the Mahass dialect of Nubian. *A-u-r-a* or *a-ua-r-a*, again, is 'king,' which is the same word as the Mahass *uru*. Whether, however, there is any connection between the ancient Meroitic and the Nubian dialects of to-day must be left to the future to decide.

PRELIMINARY NOTE ON AN EXPEDITION TO MEROË IN ETHIOPIA

BY PROFESSOR JOHN GARSTANG

WITH PLATES XX—XXIII

The site of the city of Meroë was definitely located and the importance of its ruins pointed out, by Professor Sayce in 1909; and at his suggestion, endorsed by the Government of the Sudan, the Liverpool University Institute of Archaeology was enabled to undertake excavations there. The funds for this purpose were subscribed by a special Committee, which included amongst its members Mr. Ralph Brocklebank, the Rev. Wm. Macgregor, Mr. Robert Mond, Mr. Martyn Kennard, Mr. James Smith, and Mr. H. S. Wellcome. The Museums of Brussels (M. Jean Capart), Copenhagen (Dr. Waldemar Schmidt), and Edinburgh (Dr. Dobbie) also co-operated.

The work was begun during the past winter season. Our party consisted only of Mr. Schliephack and myself, but we were able to secure the services of men trained to our methods of excavation in Egypt. These, together with a number of skilled workmen, twenty-five in all, joined us at Luxor *en route* up the Nile at the end of November, and returned with us at the end of February. Happily also, Professor Sayce was able to join us in the middle of the season, and stayed with us to the end. We owe much of the success of these first results to his inspiration and encouragement. We should also thank at the outset Mr. Peter Drummond, representative of the Administration of Antiquities in the Sudan Government, and Midwinter Bey, Director of the Sudan Railways, for numerous kindnesses and facilities which changed what might have otherwise been arduous conditions of work, so that they became pleasant and easy.

The site of Meroë is marked by the groups of pyramids to be seen some three or four miles in the desert, about 20 miles northward from Shendi, which lies about midway between Khartoum and

Atbara. The cultivable bank of the river is here very narrow, and considerable areas are covered by trees. At intervals along the river bank there are traces of ancient occupation: inland at Naga, which lies back some twenty-five miles into the Eastern Desert, there are four small but instructive temples, while at a neighbouring site, Messawrat, there is an ancient stone-built town in remarkable preservation. At both places there are ancient wells, and considerable crops can be grown after the summer rains. At Meroë, however, there are now no temples visible. During the nineteenth century it would seem that the pylon of the historical temple of Amon was still standing, but probably the political storms at the end of the century are responsible for the disappearance of its stonework, and of even the memory of its situation. Indeed, the only visible masonry of the site on our arrival was a length of stone walling, possibly one of the boundary walls of the city itself,* about three yards in thickness, standing three to four yards in height, and running North and South over a distance of a hundred yards. The spot is about half a mile from the river, on the east bank, in a partial clearing of the trees which surround the small villages of Keyêk and Begerewîyeh. This clearing seems to correspond with the site of the ancient city, for hereabout there are numerous and considerable mounds of stone, brick, and débris. About a hundred and fifty yards eastward from the wall just mentioned, there were to be seen two pairs of stone rams, lying prone in the sand which partly covered them. The ground to the East was flat, but between the rams and the wall there was a considerable amount of broken ground, and this proved to be the site of the Temple of Amon. In the north-western extremity of the site, and seemingly just beyond the city's boundaries, near to the village Begerewîyeh, there was a very large mound called by the natives *El Kenîsa* (The Church), and from its surface there stood up a large square moulded stone of dark colour, which was proved eventually to be the altar of the temple which had at one time covered the mound. Extensions of this temple towards the South furnished evidence of use during Christian times, thus accounting for the local tradition.

* This point is not yet clear: if it was the city wall, then several large buildings stood without; if it was that of the temenes, then it enclosed an area much greater than the temple of Amon, and this wall was much stouter than those which seemed to bound the temple area.

The railway alone separates these remains from the open desert, in which the nearest prominent features are two mounds, continuous with the series which indicate the ruins of the city, and forming practically its south-eastern extremity. One of these had been partly cut through by the railway. The other one we excavated, and as in the case of the *Kenisa*, it proved to be the site of a small temple, which, for purposes of reference, we shall speak of as the 'Lion Temple,' on account of two stone monuments and other smaller objects that were found within it. From this point northwards, the desert stretches away almost continuously, broken only here and there by depressions which mark the course of the summer rains. The surface, however, is dotted with low mounds, some of sand, some covered with stones, for a distance of more than a mile. These proved, as Professor Sayce had rightly surmised, to mark the site of the necropolis of Meroë. We excavated experimentally seventy or eighty of these tombs. Further East from the city, distant about three-quarters of a mile, there was a large mound standing within an outer four-sided enclosure. This has been noted by early visitors* to whom it seems to have given the impression of a peripteral building of considerable importance. It proved to be a Sun-temple, remarkable for the beauty of its architecture and for its comparatively good preservation. Its glazed sanctuary was raised aloft and open to the skies, being gained by a flight of steps from a cloistered platform of stone, which was already considerably above the level of the plain. Its situation, in the midst of an unusually broad green depression in the desert, so near to the ruins of the city, accords entirely with the account of Herodotus, where he speaks of a Table of the Sun in a meadow outside the city.†

Peripteral Temple at Messawrat. Plate XX

On this site we made no excavations, but we publish a measured plan of the main temple which we were able to prepare during a visit with Mr. P. Drummond. The building occupies the central and highest point of an ordered group of stone buildings, passages and rectangular enclosures, the whole covering an area about

* Cf. Breasted. *Second Preliminary Report*: 'The Monuments of Soudanese Nubia.' Chicago, 1908, p. 5.

† HERODOTUS III, 21.

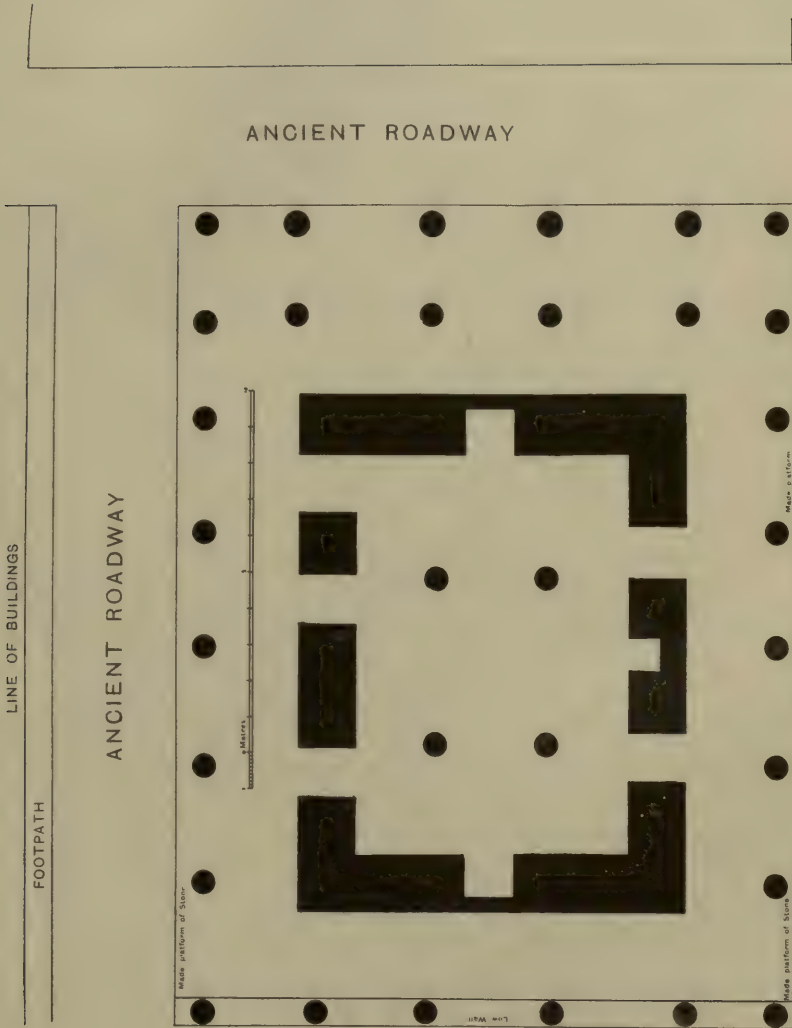
250 yards by 220 yards. The plan of this temple-city is no less remarkable than its situation.* Covered passages roofed with stone vaulting lead directly through the city to three of the sides of the temple. Many of the walls themselves, being built with two faces, packed with a rubble core between (80-100 centimetres in thickness), are finished at the top by a vaulted arch of three stones. The temple, or whatever this central building may have been, is seen to be a peripteral structure. Several fluted† columns and decorated capitals betray a Roman feeling, and suggest a date in the second or third century A.D. for its construction. There are, however, lotus capitals and other details of architecture, in addition to the form of the sanctuary itself, which reveal the development of the plan as an adaptation of Nilotic architecture to the local conditions, designed clearly, as in other instances, to obtain a maximum of cool shade.

The Temple of Amon: (i) the Kiosk

The fallen Rams which have been mentioned were the only indication as to the position of the temple. At Naga similar rows of stone rams line the approach to one of the temples, and have been displaced at one point where a small decorative building or kiosk has been added in the axis of approach. On this analogy we had hopes, in following the axis of the avenue, of re-discovering the position of the Temple of Amon. Our first trenches led us eastward to a columned building of considerable size, which we excavated completely. It was almost square, 14 metres in length and 11.50 metres in width. Its walls were of stone, being preserved, so far as we could judge, to their original height of about 110 centimetres. The angles were rounded. The doorway was to the West, and opposite to it there seems to have been a recess similar to those which we have seen at Messawrat (Plate XX); but possibly this feature is secondary, in which case the passage would have been originally continuous through the length of the building, that is, in the same line as the avenue of rams. Three square pedestals were ranged on either side in the interior of the building. These

* General Plans are given by LEPSIUS, *Denkmäler*, I.142, and CAILLIAUD, *Voyage à Meroë*, Pl. XXII.

† A photograph is published by BREASTED, *op. cit.*, Fig. 12.



MESSAWRAT: PLAN OF THE PERIPTERAL TEMPLE.

had clearly supported round stone columns, of which sufficient traces remained to give us their proportions, being 65 cms. in diameter through the torus moulding of the base, and 55 cms. through the drum itself. The pedestals themselves were built of fired brick, and stood breast-high like the walls. Corresponding to each pair of pedestals, on the outside of each wall were pairs of vertical moulds, indicating the position of columns which had stood on the breast-walls, and similar mouldings at the corners showed that columns had stood there also.

The restoration of this building thus shows to us a small kiosk or shrine similar to that of the Roman age at Naga* in principle, that is to say, with open sides and ends, which are formed as we have seen by columns standing upon low walls. Only in this case the building was of sufficient dimensions to demand two internal rows of columns to carry the roof, which we may suppose must have been of stone. Incidentally, it may be mentioned that a fragment of stone bearing the name Amentari in Meroitic hieroglyphs was found built into the inner face of one of the walls, in an obviously secondary position.

The Temple of Amon: (ii) Main building. Plate XXI

Subsequently our trenches were extended westward and brought to light, at a distance of forty metres from the kiosk, the remains of a stone pylon which was clearly that of the great temple. It was already late in the season, but by employing 250 labourers we were able in the course of a month to trace out the main features of the building. The floor was found at a depth of about two metres, and the building extended westward, hall after hall, until it touched the visible great stone wall at a distance of 120 metres, or about 400 feet, from the main entrance. The first, or outer, hall was peristyle; its walls were splayed out on either hand, but the original position of the side walls was recovered, and showed us that the plan had formerly been rectangular, measuring about twenty metres in breadth and sixty-four metres in length. The existing walls were uniformly built of brick; the facing bricks alone had been fired; while the doorways and the pylons were lined with dressed blocks of stones. The columns, of which there were ten in

* See BREASTED, *op. cit.*, Fig. 10.

the length and four in the breadth of this hall, measured about 105 centimetres in diameter, and were built of stone. They were preserved in some cases to a height of as much as three metres. As mentioned, this hall had its later walls splayed out so that its breadth at the far end was twenty-five metres. In the centre of this hall was a small stone building constructed seemingly in the time of Queen Amentari and King Neteg-Amon.* Whether this kiosk was contemporary with any part of the building, as, for example, the existing walls of this hall, was not determinable. Its walls were parallel to the original foundations, and measured only seven metres across and nine metres in length. In addition to the names and portraits of the royal personages mentioned, there was found in the débris inside its walls a fine sculpture of the god Bes, carved in strong relief on three sides of a square pillar of stone.

Passing further westward, a second court was found with four columns on either hand resting upon squared bases built of baked brick. Another pylon gave access to a somewhat similar court with three columns and bases of similar character on either side. From this chamber passages led left and right, while the main way still continued in the direct axis towards a smaller hall with two stone columns on either hand. In the shade of the columns on the left, apparently in undisturbed position, were two altars in dark sandstone, with moulded cornice; one of them bore the design of the solar disc and wings, facing to the east. This hall led westward to the three shrines of the temple. † That which was in the main axis was eleven metres in length and three metres in width. In its centre the high altar stood in its original position: it was carved in the same kind of fine dark sandstone as those just mentioned, and reliefs upon its faces represented the Nile deities and emblems. Two small votive tables and an inscribed tablet of stone bearing an emblem of Horus as the Crocodile God, lay apparently as if they had been placed at the foot of the altar on its eastern side.

A larger chamber to the south-east of these shrines, and communicating with them, was of somewhat different character,

* Their date is supposed to be the second or third century B.C., but for archaeological reasons we incline to put it later by one or two centuries at least.

† Cf. the accounts of the Oracle of Jupiter in HERODOTUS II, 29.



MEROË: VIEW OF THE TEMPLE OF AMON FROM THE WEST SHOWING THE HIGH ALTAR AND HALL OF COLUMNS.

and may possibly be thought to have been the throne room.* Its breadth was barely five metres, but two rows of four round columns adorned the interior, and these were decorated by being painted with blue and other colours, and they had been further crowned with lotus capitals which were also painted. The length of this chamber was about twelve metres, and at its western extremity a flight of four steps led up to a daïs, the whole (including the steps) being carved in a single block of stone. On the north side of this there was a small altar. Further, a doorway on this side led northward to three small chambers behind the shrines, and these chambers seemed to have been the sites of human interments. From the central one, which was behind the high altar, part of a human skeleton was recovered, and at the bottom a place for a sarcophagus had been prepared and walled with brick. From this chamber several beautiful fragments of faïence were recovered, as well as a small image of a male being wearing the head-dress of Amon, executed in relief in glass and mounted upon a gold backing. It is possible from the position and circumstances of this discovery that the burial indicates a human sacrifice (the representative of Amon himself) at the dedication of the temple. Alternatively it may be that of a royal personage deemed worthy of a tomb immediately behind the high altar in the holiest place of the temple. Two further interments were traced in the chambers behind the shrines on either side of the main one; while other objects of glaze and pottery of special interest were found beneath the flooring of the several shrines and of the hall of columns.

Behind the daïs another opening led out to a corridor, in the centre of which there remained standing a small altar, somewhat suggestive of Roman work, in the direct axis of the temple. Behind this again was a large chamber, gained by a flight of steps from either side. This room abutted on the great wall, and was built seemingly upon a low mound of ruins or débris. Its western wall, which was like a facing of brick added to the stone wall of the city, seemed to preserve traces of stucco and painting, especially in a broad recess or panel facing and overlooking the main avenue of the temple. The whole building was seemingly enclosed by a temenos-wall, which, however, was not fully traced out; and just to the

* Cf. DIODORUS III, 1.

North, outside this temenos, on the further side of a city gateway,* there was a considerable building, in which, amongst other carvings, an inscription of Amentari was found re-used as a building stone. Several other small buildings were excavated within the site of the city.

The Sun Temple. Plate XXIII, 1, and Figure 1

The plan and sections of the Sun Temple are almost self-explanatory. The main entrance to the enclosure seems to have been from the East; and outside the enclosing wall, almost in the axis of

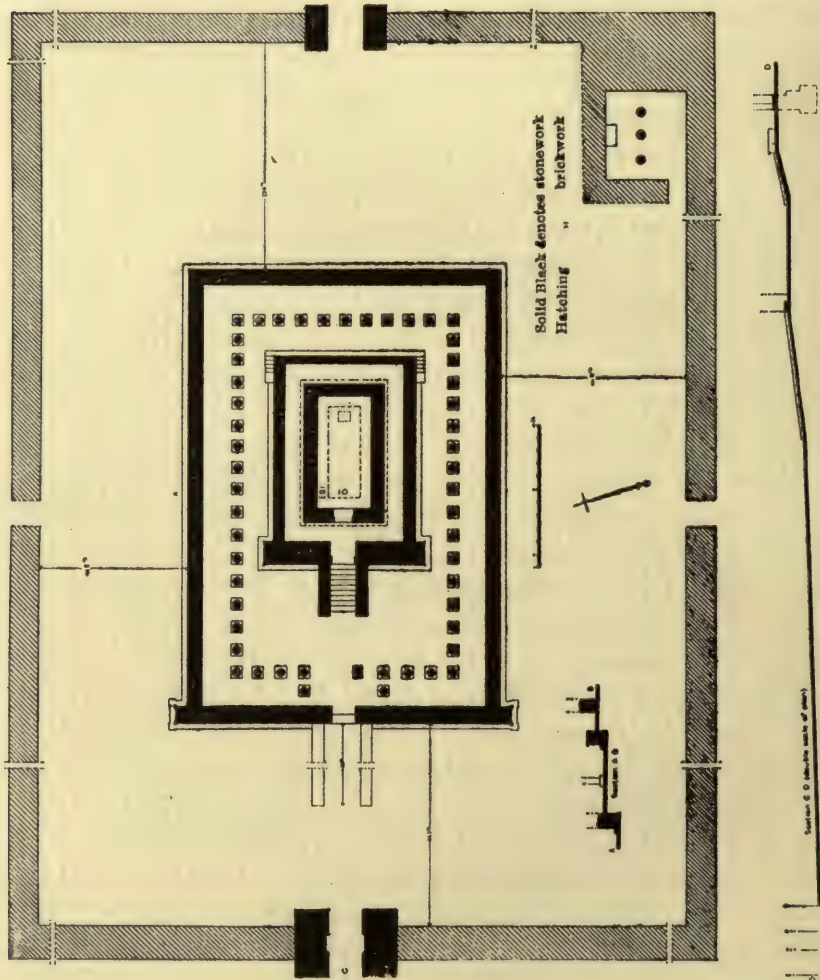
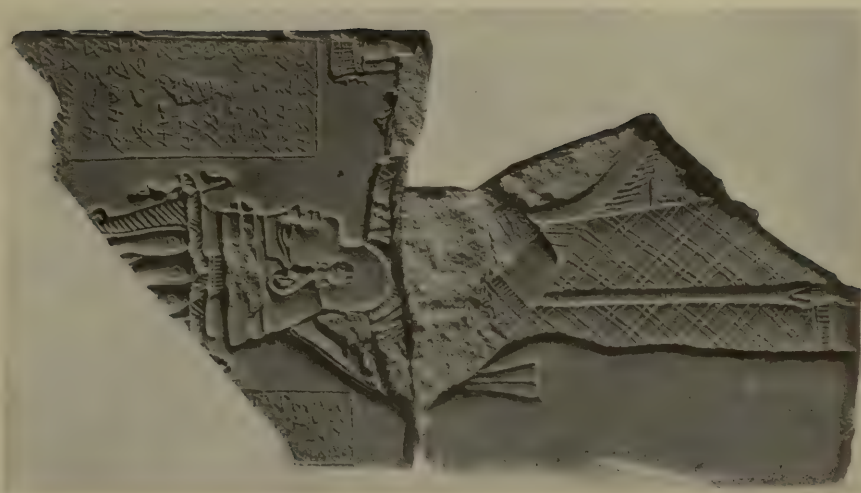
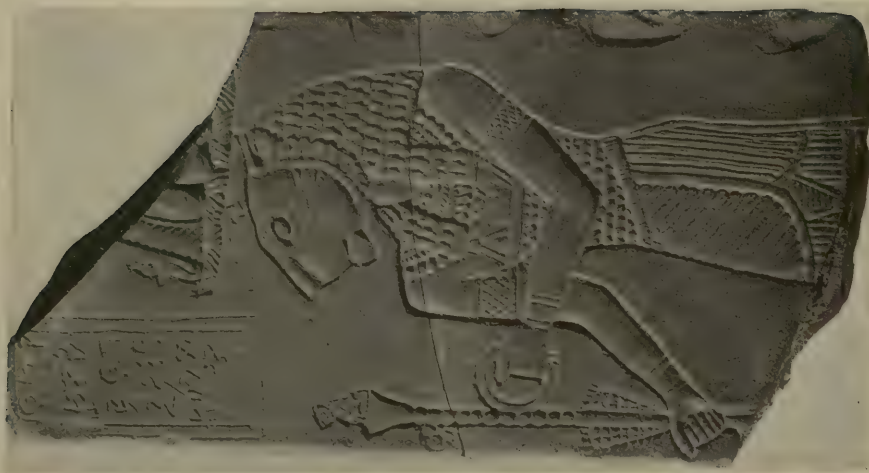


FIG. 1. MEROË: THE SUN TEMPLE, PLAN AND SECTIONS.

*The line of this ancient roadway is preserved by a modern footpath.



MEROË: CARVED STONE TABLET WITH PANELS OF CURSIVE INSCRIPTION, FROM THE 'LION TEMPLE' (No. 6).



FIG. 1. MEROË: STEPS LEADING FROM THE CLOISTERED PLATFORM TO THE SANCTUARY OF THE SUN TEMPLE.



FIG. 2. MEROË: INTERIOR OF A CHAMBER TOMB (No. 307), SHOWING THE FRAME OF A BED, WITH POTTERY AND BASKETWORK.

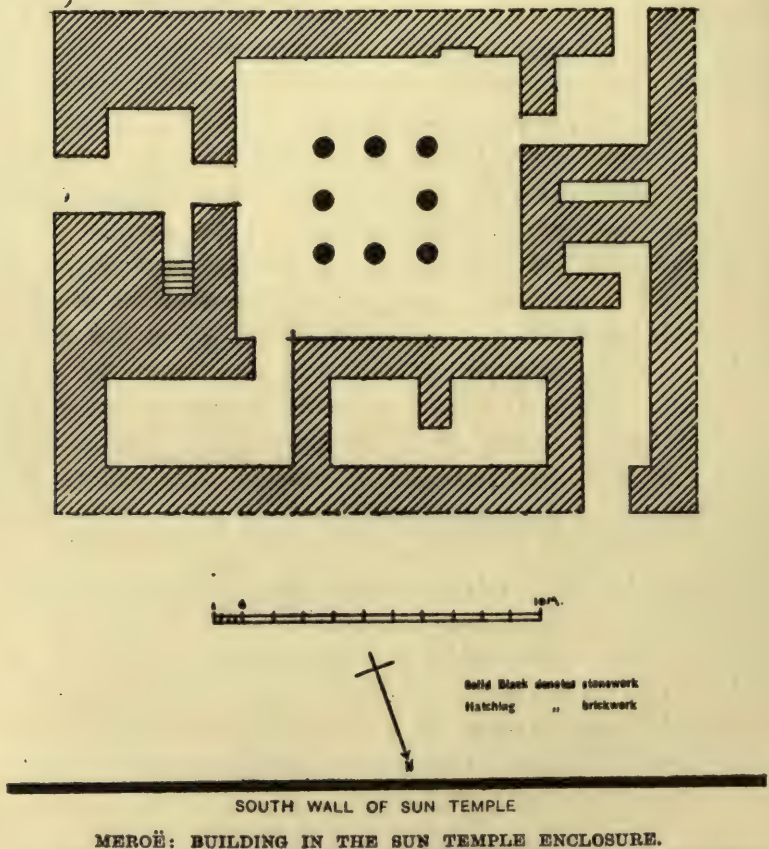
approach, there were two small kiosks not shown in this plan. The enclosure wall was built of baked brick, with stone facing at the doorways, as in the case of the Temple of Amon. A sloping ramp led up to the platform upon which was built a cloister, running entirely around and enclosing the sanctuary. The outer wall of this platform had been decorated with a series of sculptures and inscriptions. On the façade to the East were cartouches of prisoners. The names on the left-hand side of the approach had been filled in, the characters used being Meroitic hieroglyphs, but the cartouches on the opposite side had been left blank. On the south wall the subject was chiefly the spearing of an enemy, doubtless commemorative of some victory. On the western or back wall the reliefs are not continuous or well preserved, but pictures of horse riders may be distinguished. On the north side a fortress was shown with native houses and trees, and towards these the royal conqueror in his chariot is moving in a formal progress, accompanied by his infantry.

The sanctuary is approached, as the plan shows, by an ascent of nine steps, which are made of dark sandstone, in distinction to the light stone uniformly employed throughout the structure. The floor and probably the sides of this chamber had been covered with glazed tiles of two colours,* arranged in alternate rows, of which a considerable proportion remained in position. There had also been an altar of dark sandstone, of much the same character as those found in the Temple of Amon, but it was broken in pieces, and a great hole had been dug at the western end of this sanctuary, probably by plunderers in search of treasure. The emblem of the cult, a large solar disc, was found amid the ruins of the western wall of the sanctuary, into which it seems to have been built facing to the East. On either side of the approach to this central chamber there were considerable inscriptions in Meroitic hieroglyphs. On the nearer side of the corridor that surrounded the sanctuary there had been also certain sculptures, and that on the right hand was recovered in large measure. It disclosed the carved face and three cartouches of Ark-Amon (? Ergamenes, who, according to Diodorus, reigned about the time of Ptolemy II, say B.C. 270†). This carving

* One certainly blue-green, the other probably yellow.

†A king of the same name, possibly even the same person, appears some years later in the records of Ptolemy IV.

was incised, and in this detail as well as in style and treatment, differed altogether from that which decorated the main walls of the platform. It is probably an addition, and possibly marks a period of restoration, for in the western side of the court or temenos there were recovered numerous small fragments of a stela of granite, bearing the name of King Aspelut, whose date presumably was about B.C. 625-600. The temple must therefore have been already constructed in his time. A further carving on the west wall of the corridor* is noteworthy: it showed the feet of the conqueror standing over the forms of eight bound captives (shown on a much smaller scale), one of whom wears a head-dress very suggestive at first sight of a Grecian helmet.



*The corridor surrounding the central chamber was divided from the cloistered platform only by a low wall (Cf. p. 64, fig. 1, section AB.); hence these sculptures would be visible from below.

Contemporary domestic architecture seems to be illustrated by the plan here reproduced of a building found inside the enclosure of the Sun Temple to the South. Possibly it was the priests' house, the platform gained by a flight of steps near the eastern entrance may have been the floor of the bedroom, removed in this way from danger of scorpions, which are plentiful; but we cannot explain the two chambers which seem to be without doorways. The wall stood rather over a metre in height.

Two Smaller Temples

Of the two other small temples excavated, the Lion Temple, like the Sun Temple, was gained by ascending a sloping way, but it was of much less significant character. The interior consisted only of two rooms, the roof of which was partly held up by columns of stone. Its main walls were built of red brick. This piece of excavation was of importance rather because of the number of small objects that were found in the work. On either side of the doorway there had been carved images of seated lions, one of which remained in position, while the other was found inside the building, though its pedestal remained *in situ*. A fine inscription in Meroitic cursive writing, surmounted by a winged disc, should eventually throw some light on the exact nature of this building; while a more fragile and smaller slab, covered on one side similarly with a cursive inscription, bears the traces of a royal cartouche on the reverse. Amongst other objects found at a deeper level were a wooden sundial, with a decoration in the form of the pylon of a temple, a small royal statue of dark stone, and the tablet of laminated stone pictured on Plate XXII, having on one side the Lion God, and on the other side apparently the figure of the King, in each case accompanied by panels of Meroitic writing. A small carved lion* on a pedestal, about three centimetres in length, and a considerable deposit of glazed fragments also were found.

The Temple called the 'Kenisa' was of much greater size. As in the cases described, the entrance was from the East up the slope of a mound, and in this case near the surface of the mound there were two large columned halls, leading beyond to the shrine, in

*The frequent recurrence of the Lion-emblem leads one to suppose that it may have been the ancient totem of the people of the district.

which the altar remained standing and glazed tiles remained upon the floor. Some of these tiles were decorated with a triangular design in blue and black. The buildings to the South were even more extensive, and did not accord with the plans of any other Meroitic buildings, though conforming in some details: they seemed to have been made, or at any rate used, in the Christian period. But in the body of the mound there were found the remains of an earlier temple, on which the upper one was closely modelled and superposed; and this lower one was that which seems to have been the most important, and belonged to the best period of Meroitic work. To excavate this would be to destroy the whole of the uppermost building, and for this reason we were content for the present to make soundings in the floors and vacant spaces as circumstances permitted. On reaching the floor of this main temple at a depth of two metres, a Meroitic inscription was found upon a smooth slab of granite. At the same time, but not in the same chamber, another discovery added considerable interest to this excavation. At this point two columns had stood which had supported the roof of the upper building, and upon digging down to the foundations of these, it was found that they consisted of the remains of two gigantic columnar statues, the pedestals of which remained in their original position. The several portions of these statues had been thrown down to make solid bases upon which to build up the later columns, and they fitted together with some completeness. They are the statues of an Ethiopian king and queen. The skin of the former was painted red, and of the latter almost black. The pylon of the main temple and the outer walls, at any rate, were constructed of red brick, and corresponded with the style of the stone-built pylon of the Sun Temple, even to the detail of the rounded ornamental corners, for which special bricks had been moulded. Some of the inner walls, however, notably those of a chamber below the sanctuary, seemed to have been built of brick which had not been baked, at any rate, not hard-baked. A second altar was found in the southern group of buildings, amid surroundings which could not be very definitely traced, and it is interesting to note that upon the eastern side of this altar, above the mouldings, there was carved the emblem of the solar disc and wings. Another object found upon this mound was a

tank of stone decorated at each end with the head and shoulders of a lion.

The Necropolis. Plate XXIII, 2.

The necropolis, so far as our soundings went, seemed to be divided physically into three portions (by shallow valleys formed by the rain), and these seemed to correspond roughly with three different periods. In the first of these the tombs were covered with mounds of sand, or more rarely of sand covered with stones. The entrance was down a sloping way, or rough steps, and was usually from the East; and under the mound two doorways were generally found leading into one and the same chamber. In this the burial would lie, towards the southern end. A group of large pottery vases, some as much as sixty centimetres in height, would completely fill the northern half of the chamber; while ranged around the southern end would be vases of rarer quality, whether of black polished ware with incised patterns, or of red ware painted with white, or of a highly burnished red with marks in relief. Basket work also was found commonly; and glass objects rarely.* The excavation of these tombs was rendered extremely difficult by the fact that, whether intentionally or by accident, the passages and often the chambers, too, had become filled with cement, so that the actual digging had to be done with a chisel. In the middle portion of the necropolis there were two classes of tombs, one resembling that just described, but more often covered with stones, the other indicated upon the surface only by a ring of stones. In some cases this ring was made of stones of medium size brought for the purpose, but in all cases the pebbles within the ring had been arranged. In most examples the black pebbles had been removed entirely, and in some instances these black pebbles formed the ring, leaving the white pebbles within. In a few examples only the reverse was the case, the ring being formed of white pebbles and the black pebbles remaining scattered inside. The entrance to such tombs was not by a sloping way, but commonly by cut steps leading down to two adjoining parallel passages at a depth of about a metre and a half, which gave way on the western side to two doorways, side by side, leading to the chamber beyond. In each class of tomb the interment was much the same, but some new features had made their

* We found no support for the story of Herodotus (III, 24) that the dead were encased in a kind of glass coffin.

appearance. Not uncommonly the deceased had been laid in the tomb upon his bed, the decayed wooden frame of which remained, as may be seen in the photograph which we publish of tomb No. 307. In one case at least a chair or stool was placed within the tomb. Iron weapons now made their appearance in quantity, swords, spears, arrow-heads, knives, and tools of this metal being freely found.* The huntsman's bow and even his hounds were buried with him. These tombs belong to the middle portion of the necropolis. Passing further northward a class of interment was found, much more distinct in type from those which we have described, than the two groups mentioned were from one another. The tomb was smaller; the mound also was smaller and less defined. The entrance was commonly by a flight of steps, and there was usually only one door. No burials were found intact, but a new class of pottery made its appearance, a thin and highly attractive painted fabric with conventional designs in colours; in some cases the ornament was attained by repetition of a pattern impressed in the wet clay with a stamp. This third group of tombs seems to us to have been the latest in date of those which we examined, with the exception of some possibly of Christian period, from which nearly all Meroitic characteristics had disappeared, and the pottery was commonplace and utilitarian only. The pottery and character of the Meroitic tombs was distinctive, peculiar, and entirely non-Egyptian.

*It is clear that the account of Herodotus (VII., 69) refers to some other African tribes. Diodorus shows how generally the term 'Ethiopian' was employed.

REPORT ON A NIGERIAN SKULL

(PRESENTED BY MR. H. R. PALMER)

BY DR. W. H. BROAD AND PROFESSOR PATERSON

The skull is evidently that of a young adult male.

The mandible is absent.

The cranium is characterised by a fairly good frontal rise, and by a very abrupt contour in the occipital region.

On the left side of the frontal bone, at the junction with the malar bone, is a flattened vertical projection of bone, continuous with the temporal crest.

The cranial sutures are moderately complex: there are five epactal bones in the lambdoidal suture; three in the left limb, two in the right.

A very small parietal foramen is present on the left side; none on the right.

The incisor, canine, first pre-molar, and wisdom teeth, are missing, but their alveoli are present, except that for the right central incisor. The teeth which are present are moderately worn.

Craniometrically, the cranium is mesocephalic, markedly dolichocephalic, and metriocephalic. It is also phaenozygous. Taking all characters into consideration, one has no hesitation in describing it as negroid.

INDICES

Vertical index - - -	74	Orbital index - - -	100
Cephalic „ - - -	69·7	Palato-maxillary index	101·7
Gnathic „ - - -	104	Dental index - - -	29·5
Facial „ - - -	51·6	Stephano-zygomatic index	83·9
Nasal „ - - -	54·5		

DETAILED MEASUREMENTS

<i>Cranium</i>	<i>mm.</i>	<i>Face</i>	<i>mm.</i>
Glabello-occipital length	- 182	Basi-nasal length	- - - 96
Ophryo-occipital	,, - 180	Basi-alveolar	,, - - - 100
Naso-occipital	,, - 180	Interzygomatic breadth	- 124
Basi-bregmatic height	- - 135	Intermalar	,, - 108
Minimum frontal diameter	92	Ophryo-alveolar length	- - 85
Stephanic diameter	- - - 103	Naso-alveolar	,, - - 64
Asterionic	,, - - - 105	Nasal height	- - - - 44
Greatest breadth	- - - 127	Nasal width	- - - - 24
Horizontal circumference	- 500	Orbital	,, - - - - 35
Frontal-longitudinal arc	- 120	Orbital height	- - - - 35
Parietal-	,, ,, - 137	Bidacryal width	- - - - 26
Occipital-	,, ,, - 119	Palato-maxillary length	- 56
Total	,, - 376	Palato-maxillary breadth	- 57
Vertical-transverse	,, - 300	Length of molars and pre-	
Length of Foramen Magnum	37	molars	- - - - 38
Cubic capacity	- - c.c. 1275		

THE MILITARY EFFIGIES AT MALTBY AND BELLEAU IN LINCOLNSHIRE

BY PROFESSOR F. P. BARNARD

WITH PLATE XXIV

I.—THE MALTBY EFFIGY

In the church of Maltby-le-Marsh in Lincolnshire there lies a fine and little-known military effigy which in respect of one important feature shares a peculiarity with only two other such English memorials now extant, and may be unique in certain other details. It is not known for certain what person the monument commemorates, but the equipment fixes its date as being about 1310; it may therefore perhaps be attributed to either Robert de Tateshale or Sir William de Welle, between whom there was litigation at that time as to the right of patronage to the benefice. The length of the figure is 6 feet; the extreme breadth across the chest from shoulder to shoulder inclusive is 21 inches, rather narrow in proportion to the height. I need scarcely say that the sizes of effigies are purely arbitrary, and have no relation to the stature of the people of their time. The length, for example, of the 93 wooden effigies still left to us varies from 7 feet 10 inches to 1 foot 9 inches, and one of the two that reach the former dimensions is the figure of a lady. Judging from the size of the armour which has come down to our time, and almost all of that is later than 1500, the height of those who wore it rarely exceeded 5 feet 4 inches, and the whole scale of development, of chest, of arm, and of leg, was slighter than that of the average man of to-day.

The features are obliterated, but apparently the face was clean shaven, which was then the fashion, and remained so till the middle of the century. The figure is in mail and quilted defences, further reinforced only by knee-cops, whether of plate or of cuir-bouilli is uncertain. Leather used for such purposes was boiled in oil, then beaten till it was possible to mould it to the

required shape, and lastly allowed to dry hard. Froissart (Bk. IV, Chap. 20) says that the Moors of Tunis used light targets covered with boiled leather, which no spear could penetrate if the leather had not been over-boiled.

This is the period of the *establishment* of the knee-cop, the earliest *visible* piece of plate armour to be worn; for there is some evidence that a small plate known as the 'plastron-de-fer,' a metal chest-protector, had long been used under the hauberk or the gambeson. The knee, an all-important and easily injured joint, and the part of a horseman most exposed to the attack of a foot-soldier, the more so since after the middle of the 13th century the shield had become shorter, was the first portion of the body to receive additional protection by either metal plate or hardened leather. A knee-plate was known, indeed, in Scandinavia in the 12th century, and the improved hollow knee-cop occurs intermittently on English monuments during the last quarter of the 13th century; as on our earliest brass, that of Sir John Daubernoun the elder, at Stoke D'Abernon in Surrey, the date of which is about 1277; as on an effigy of 1275, or thereabouts, at Hatfield Broad Oak in Essex, to Robert de Vere, Earl of Oxford, who had died more than seventy years before; and as on the effigy of the same period in Salisbury Cathedral to William Longsword the younger, who died in 1250, which is well ahead of the fashion in also having elbow plates over the mail. But these, and others, are isolated instances of what did not become general till the 14th century was some years old.

There is no trace of ornamentation on the knee-cops here, and if we could be sure that there never was any, this would perhaps suggest that metal, not leather, was represented; for engraving or inlaying on plate armour of metal apparently had not yet begun, whereas cuir-bouilli was often embossed from the first. There may, however, once have been ornament painted on the stone, but now worn off. At first the knee-cop was merely fastened over the mail trousers, as illustrated in the window painting of the murder of Becket in the North Transept of Oxford Cathedral. But its introduction soon meant something more than the safeguarding of a delicate joint, for it enabled the stiff-kneed mail trousers to be cut into two portions: the upper half forming breeches that stopped

short above the knee, the lower half forming stockings that began below the knee, which now could be more easily bent. This severance of the upper and the lower leg armour was not quite a novelty; it was the independence won for the knee that was new. In the effigy of Longsword the younger the mail trousers are divided, but in such a way that the stockings reach to above the knee, and the breeches come down over them to below the knee, thus giving a double thickness of mail, while on the top of this a plate is fastened: other 13th century effigies, among them those of Robert, Duke of Normandy, in Gloucester Cathedral, and De Vere already mentioned, have padded drawers pulled over the knees: crippling arrangements, all these, that could not last. A great advance, then, was made when the breeches, of whatever material, ended above the knee, the lower leg defences began below it, and the intermediate space was left free under the knee-cop.

On the head is the mail coif of the time *separate* from the hauberk, surmounted by a helmet of the basnet class, then just coming into vogue, but with a slight ridge, which is carried down the back of it. The ridge is of much less elevation than that on the head-piece of the oaken effigy to Sir Robert du Bois, at Fersfield in Norfolk, who died in 1311, which is midway between skull-cap and basnet; but its presence marks out this helmet as being one of a type seldom met with, the precursor of the perfected basnet. The helmet is moderately conical in form, the pitch being lower than it became as the century proceeded, and is exactly that shown in Demmin's *Arms and Armour*, p. 249, No. 24, which also seemingly is slightly ridged, but the drawing is rather rough. Like the latter, too, and like the Du Bois example, it is evidently placed over the complete mail coif, for there are no signs along its lower edge of its being worn, as was the basnet some twenty years later and onwards, without a mail coif under it, and with merely a camail, or mail neck and shoulder guard, the surviving remnant of the coif, laced to it. The head defences here, therefore, are transitional between the simple mail coif, with its plate skull-cap either above or below it, and the pointed basnet with only a mail tippet attached.

It is well to be clear about the three stages of the *mail* defences of the head and neck. First, prior to about 1250, we find the

continuous mail hood all one piece with the hauberk, the 'hooded hauberk' as it is sometimes called. This is well shown, without a concealing surcoat, by an Illumination of 'The Loosing of the Four Angels' (*Rev.* ix, 14) in Royal MS. 19 B. XV at the British Museum; and by the medallion of the Siege of Canterbury by the Danes in one of the 13th century windows of the N. Triforium at Canterbury Cathedral. The manner of its management at the chin and neck we learn from the effigy in the Temple Church of William Marshall, Earl of Pembroke, who died in 1231, which shows the chin-strip tied up on a level with the left ear; while in an effigy at Pershore in Worcestershire, of the same era, this lappet is hanging down open. Secondly, we have the more easily adjustable mail coif, covering the head, neck and shoulders, and *separate* from the hauberk, as in the effigy under consideration. This arrangement, which, besides giving more freedom, doubled the mail over the upper part of the chest, does not appear till the second half of the 13th century. A good example of the headless hauberk which accompanies the separate mail coif is given in an Illumination in Royal MS. 2 B vii, at the British Museum, where the Virgin Mary is presenting an outfit to a warrior whom she has just raised from the tomb. Sometimes, however, the headless hauberk had a high collar, like the 'mail standard' of the 15th century, as on the effigy, in the Dominicans Church at Paris, of Louis, Duke of Bourbon, who died in 1341. Finally we are left with the camail, or mail tippet, alone, as already described, laced to the bottom of the basnet

Doubtless there was a compensatory strengthening of the helmet to make up for the discarding of both the mail defence and the plate cap from the head, though it must be remembered that the rise in height of the basnet, besides offering a better 'glancing surface,' interposed a space between the top of the head-piece and that of the head, whereby the shock of a blow would be much mitigated. Moreover, a helm could be worn over the basnet. Perhaps the first appearance of the camail on a monument is in the brass of about 1325 to Sir John de Creke, at Westley Waterless in Cambridgeshire. The last that has been noticed I mention because it occurs in the neighbourhood of Maltby: it is in the brass of 1424 to Robert Hayton, Esq., at All Saints, Theddlethorpe. But this brass is local work, not up

to its date in equipment, and probably copied from earlier models in the vicinity which have now disappeared. For the camail had been replaced by the plate gorget in the time of Henry IV, the transition from the one to the other being admirably shown by another, and far finer, Lincolnshire brass, that at Spilsby, of 1410 or so, to William, 4th Baron Willoughby D'Eresby, who died in 1409. Next to the head it is likely that a padded cap was always worn. We see it in the De Ryther effigy of 1308 given in Pt. ii of Hollis' *Monumental Effigies*; in illuminations, such as that of the 13th century from the Album of Willars de Honecort given in Hewitt's *Ancient Armour*, I, 238; and Froissart (Bk. IV, Chap. 26), in relating the death of the Count of Armagnac in 1391, tells how he took off his basnet and remained with his head bare save for a skull-cap of linen, no doubt quilted.

The shield borne by our effigy is of the large, slightly-bowed, heater shape of the time, similar in outline to No. 5 in Plate I of Grazebrook's *Dates of Shields*. Its greatest width is $17\frac{1}{2}$ inches. The base of it is gone to the extent of about a third of the length, but by following out the curve of the side we see that it must have been from 25 to 27 inches long. The outer surface is perfectly smooth, and apparently has never been carved with armorial bearings: any such it ever displayed must have been expressed in paint, as was commonly the case with effigies in hard limestones, heraldic and minuter sculpture becoming more usual when the easier freestone took their place as the century progressed. For its size relatively to the figure the shield may be compared with that in the brass of 1289 to Sir Roger de Trumpington, at Trumpington in Cambridgeshire; or that in the brass of 1308 to Sir Robert de Setvans, at Chartham in Kent; but it is less bowed than either. It is suspended by a strap, or guige, passing over the right shoulder, $1\frac{1}{8}$ inches in width. No buckle is shown on the guige. This shield-strap lies generally either over or under the mail coif: here it is partly under, partly over, as on the effigy of Sir David de Esseby at Castle Ashby in Northamptonshire, who died at some time before 1268.

Round the wrists are straps, five-eighths of an inch wide, fastened with small square buckles. Such straps are often found on early mail-clad figures: obviously they served to keep the weight

of the mail on the arms from incommoding the hands. The corresponding straps seen below the knees of similar effigies, as for example that in Salisbury Cathedral of William Longsword, Earl of Salisbury (natural son of Henry II and Rosamund Clifford), who died in 1226, and which in the same way relieved the lower leg, naturally are not present in this effigy.

The hands are placed palm to palm in the attitude of prayer. The mail on them has had divided fingers: enough of the hands remain to show this. Besides, in date the mail gauntlets with divided fingers go with the separate mail coif. Both of these advances in the direction of pliability were made in the second half of the 13th century. The mail mitten without fingers belongs to the earlier continuous hauberk and hood already described.

At the bottom of the hauberk is the customary slit up the front for convenience in riding. This slit extends for four inches. Three inches of the skirt of a quilted gambeson, generally of leather or stout linen stuffed with wool or tow, show below the bottom of the hauberk. The quilting, which can just be detected by sight and touch on the right side, is stitched down as usual in vertical lines, as in the effigy of about 1300 at Ash-by-Sandwich in Kent, and the line of the riding-slit coincides exactly with the slit in the hauberk. The gambeson relieved the pressure of the mail upon the body, and also acted as a deadening buffer against thrusts and blows. It had sleeves, which sometimes show at the wrists, as on the effigy at St. Peter's, Sandwich, which is of the first half of the 14th century. A drawing, made in 1785 by that very industrious and distinguished antiquary, Thomas Kerrich, of the bare-headed effigy in the Church of the Dominicans at Paris, commemorating Louis, Count of Evreux (brother of Philip IV of France), who died in 1319, shows the top of a gambeson, of the same pattern as ours, appearing at the neck as well as on the lower arm. The thighs of the Maltby figure are covered with quilted defences of precisely the same make as the gambeson, and we may compare with this the Setvans brass, and that, of 1348, to Sir John Giffard at Bowers Giffard in Essex.

Below the knee the legs and feet are clad in mail hosen, or chausses. The right leg is crossed over the left. It is hardly necessary here to allude to the exploded belief that the cross-legged

attitude of many of our military figures indicates a Crusader, though this is a popular delusion that still enjoys the tenacious vitality which is a property of error. It was simply an easy and a natural pose, possible for a man in pliable mail, and one which assisted also to a free and graceful disposition of the drapery of the surcoat. It is found before the first Crusade, and for eighty years after the last; it is seen on the tombs of men who, we know, never went Crusading; it is apparently peculiar to England, while Crusaders were not; and though there were priestly Crusaders, no ecclesiastic has been discovered similarly commemorated. After plate takes the place of mail and other pliant defences on the legs, we no longer find this position, since it would be unnatural and difficult for limbs locked up in steel.

The left foot of our soldier rests upon a lion, the right upon a wyvern, and these beasts are engaged in combat. The wyvern resembles that on the seal of Roger de Quinci, Earl of Winchester from 1219 to 1264. Its long tail is fancifully twined round the right spur. The spurs are prick spurs of the ball and spike shape, like those on the well-known kneeling warrior in Royal MS. 2 A. xxii, fol. 219, in the British Museum, but with longer spikes. Their straps are five-eighths of an inch wide. The goad, or prick, spur was soon to give way to the rowel, or little wheel, spur, which was less likely to inflict a serious wound on a horse. The rowel, though, was already known, and had appeared in the 13th century on the First Great Seal of Henry III, and on the incised slab to Sir John le Botiler, of about 1285, at St. Bride's, Glamorganshire, early instances which have sometimes been overlooked; but it did not win its way so far as entirely to supersede the prick spur till the middle of the 14th century, from which time the latter disappears from the monuments. Both forms occur on the brass, of 1347, to Sir Hugh Hastings at Elsing in Norfolk.

The sword hangs at an angle on the left front of the wearer, as was then the mode, a handy enough position for a mounted man, across whose left thigh it would lie obliquely. The pommel originally would have just touched the left arm, but pommel, hilt and quillons are lost, as is the lower third or so of the scabbard. The total length of the weapon from pommel to chape inclusive was about 3 feet 9 inches. The sword-belt, $2\frac{3}{8}$ inches wide, is clasped

with a large square buckle, and has a long pendent end. The method of fastening the belt to the scabbard differs materially from any usually seen. I can myself point to no quite parallel case, nor can Mr. Albert Hartshorne, whose monograph on the *Swordbelts of the Middle Ages* we all know.

The sleeveless surcoat, or 'bliaus' (our modern 'blouse'), of silk or linen, which protected the armour from sun and rain, longer behind than before, but shorter than the cumbrous earlier pattern shown on the Great Seal of King John and the First Great Seal of Henry III, is of the same character as that on the effigy at Ash-by-Sandwich: in fact, is of the common cut at the time. It is confined at the waist in the same way by a narrow strap, one inch in width, fastened with a small square buckle. The slit behind, to render it manageable on horseback, is clearly indicated.

We now come to another special distinguishing feature which makes our effigy of peculiar interest. This is a pair of ailettes (or little wings) set *at the sides* of the shoulders (Plate XXIV). Whether these additions to the panoply of the late 13th and early 14th centuries were defensive, or whether they were purely decorative, is as yet undetermined. Any that were for defence must, one would think, owing to their unsupported position, have been of metal; but we know, from the Roll of Purchases for the Windsor Tournament in 1278, that some, at any rate, were of leather covered with the cloth called 'carda,' whatever that was. They appear on a certain number of brasses of that period, where they are necessarily placed *behind* the shoulders; the Bacon brass, of about 1320, at Gorleston in Suffolk, may be cited as a specimen. But they are known to exist on only five stone effigies in England besides this one, and on three of these others, namely, those at Clehongre in Herefordshire, Ash-by-Sandwich in Kent, and St. Nicholas' Church at Newcastle-on-Tyne, they are placed (as perforce on the brasses) *behind* the shoulders. None of the wooden effigies have ailettes. The position of the ailettes *at the sides* of the shoulders in this effigy was remarked by the all-observing Hewitt (*Ancient Armour*, I, 249, and II, 176-7), who says that 'this is the only instance of such an arrangement hitherto noticed in our country,' and compares with it the statue of Rudolf von Thierstein at Basle, figured by Hefner (Pt. II, Plate 41). It occurs, however, on an effigy of 1302 in



RECUMBENT EFFIGY IN MALTBY CHURCH, LINCOLNSHIRE.

Winchester Cathedral, supposed to be a memorial of Gaveston's father, and on a third at Great Tew in Oxfordshire. An example in glass, formerly at East Winch in Norfolk, is recorded by Weever on Plate D, p. 562, in his *Antient Funeral Monuments*, and it will be found on the Seal of Edward III as Duke of Aquitaine in 1325, and on his Great Seal as King in 1327. The knights in the mural frescoes in the chapel of the Minutoli family at the Cathedral of San Gennaro in Naples wear lozenge-shaped ailettes at the sides of their shoulders: a form seen, too, in English paintings. In the Illuminated MSS. of those days, ailettes are depicted in either position, according as the wearer is represented in profile or full-faced, in order to show the armorial bearings generally displayed upon them. In the Roll of Arms of those present at the Siege of Carlaverock in 1300, Robert de Tony is described as wearing ailettes, which, as well as his shield and banner, were charged with a red maunch. On Continental incised slabs they are now and again found *in front* of the shoulders. Half-a-dozen cases of this are given in Creeny's *Incised Slabs on the Continent of Europe*. In a 14th century MS. of Lancelot du Lac, in the *Bibliothèque Nationale* at Paris, they rest on the shoulders and their tops are fixed to the bottom of the helm. The ailettes on this effigy are oblong in form, and measure 12 by 7 inches. Like the shield, they bear no indications of heraldic carving, so that any coat shown on them was probably executed in paint.

No doubt in its finished and perfect state the whole monument was, as usual, coloured, but no traces of painting, gilding, or silvering, can now be found upon it, even in the more protected parts. There is a noteworthy absence of any stiffness in the treatment of this effigy. For example, as in the De Vere figure already mentioned, the folds formed in the mail above the elbow by the bending of the arm, and elsewhere, are faithfully rendered; and in this it supplies an instructive contrast to the fine and exceptionally well preserved effigy in the neighbouring church at Saleby. The mail of the latter is conventional, as is frequently found. It fits without a wrinkle, like the costume of a harlequin, in a way that would have roused the envy of George IV, and in which not a joint could have been moved.

Under the head of the Maltby soldier are two pillows. The

lower one is square, the upper one, much smaller, is lozenge-shaped and placed diagonally on the former, and is supported by a pair of angels, now much mutilated. The arrangement here, a not unusual one, is almost identical with that of the pillows and angel-supporters of the effigy in Westminster Abbey of Edmund Crouchback, second son of Henry III, who died in 1296, and we shall meet with it again at Belleau.

The important monument I have described is fortunate in its present custodian, for The Rev. R. E. H. Duke, the Rector of Maltby, who fully recognises its especial value and interest as a contribution to the history of military equipment, has most wisely had it railed off for protection.

II.—THE BELLEAU EFFIGY

The general condition of the military effigy at Belleau is inferior to that of the Maltby figure; but, oddly enough, some of the parts wanting in the latter have survived in this. It is broken across into two pieces, the fracture being just below the knees, and the edges of the break are worn and mutilated, so that at this point there is some little loss. In the lower portion of the slab two fragments are detached. The date of the monument may be placed between 1275 and 1300, and Mr. Massingberd, of South Ormsby, suggests that William de Welle, who died in 1289, is perhaps commemorated here; Mr. Tatham, of Claxby, is of opinion that it is Sir William de Vescy, whose death took place in 1297. No. 44 in the St. George Roll of Arms of about 1280-95 is William de Vessy, who bore Or, a cross sable with a label of 5 points gules. The length of the figure is about 6 feet, the measurement across the chest and shoulders 19 inches: thus the proportions are more slender than those of the Maltby soldier.

The man is in armour of the ante-plate period, though it is possible that the swelling on the right, and only remaining, knee may indicate a knee-cop of plate or cuir-bouilli. The coif is separate from the hauberk. The material of the coif and hauberk, as of the leg defences, is not clear. No carving representing mail or quilted armour appears anywhere, even in the less exposed parts. It is hardly conceivable that, had there been such, it could all have

disappeared; therefore, if the figure were originally exhibited as in mail, the links must have been painted on the stone, a method often employed in the age of the hard limestone monuments. Not a trace, however, of any paint remains now. If no depiction of mail ever existed here, probably the defences were supposed to be of leather, and were coloured accordingly in some flat tint. The folds shown in the bend of the right arm would be appropriate to either mail or leather. The riding-slit up the front of the hauberk extends for three inches. There is no sign of a gambeson underneath.

Round the brow is a narrow strap, or fillet, five-eighths of an inch wide. The coif may have been, as I have said, either painted in imitation of mail, or coloured to indicate leather, for the metal skull-cap in this effigy was supposed to be underneath, not over, the coif; otherwise a little below the strap we should find a line denoting the bottom edge of the cap, as on the monument, of about 1325, to Sir Richard de Whatton, at Whatton in Nottinghamshire. The skull-cap here is ridged, as is evident by the superimposed coif being pushed up by the ridge. Similarly the pointed skull-cap of Longsword reveals its presence under his mail coif, though there of course by a point, not a ridge. This ridged skull-cap is well illustrated on the Whatton effigy, where it is outside the coif. The leathern fillet round the temples kept the coif in place, and when the latter was of mail must to some extent have relieved the pressure on the head. Thus the brow-strap may be compared with the kindred straps at the wrists and below the knees of many mailed figures. Very often for security these fillets were threaded alternately over and under the mail in sections. This, on a stone or wooden figure, would be shown by carving, or by painting, according to the style of the monument; but sometimes it seems to have been altogether outside, and there are other, less usual, ways of arranging it. The brow-strap disappeared as unnecessary when the metal skull-cap was extended down the back of the head, thus forming the basnet type of helmet.

The hands are bare, the hauberk stopping short at the wrists, and the treatment of them is very striking and vigorous. The right hand is at the hilt of the sword, the left grasps the scabbard; the dying man, preparing for rest after the battle of life, has just

sheathed the weapon for which he has no more use. *Milicia est vita hominis super terram* is the inscription over a knight in a Penitential in Harleian MS. 3,244. The earliest example of this posture, which I believe is not found on any English brass, occurs in the effigy in the Temple Church of William Marshall the younger, Earl of Pembroke, who died in 1231, where, as elsewhere, the position of the right hand leaves no doubt that putting up, not drawing, the sword is intended. Many other examples might be adduced in proof of this being the meaning of the attitude: among them the long posthumous wooden figure at Gloucester Cathedral, made in 1280, or thereabouts, in memory of Robert, Duke of Normandy, who died in 1135; the Purbeck marble effigy of 1305 to Robert de Keynes, at Dodford in Northamptonshire; and the effigies of Sir Roger de Kerdeston, who died in 1337, and Sir Oliver Ingham, who died in 1343, respectively at Reepham and Ingham in Norfolk. The sword before us measured, when complete, 3 feet 4 inches over all. The pommel, hilt and quillons all remain. The last are straight. The globular pommel, slightly pointed at the upper end, where it terminates in a small knob, is grooved vertically like that on the Creke brass of about 1325. The scabbard has the common gabled top so often seen, as for example in the Rey monument of about 1280 at Gosberton in Lincolnshire, and affords an early instance of a metal locket, which is here placed near the mouth of the sheath, and may be compared with that on a Ros effigy of 1285 in the Temple Church. The sword-belt is $1\frac{1}{2}$ inches wide, and the outline of an oval buckle is faintly discernible. Its arrangement resembles that on the figure at Ifield in Sussex of John de Ifield, who died in 1317, but there the scabbard has two lockets. The nose is gone, but the eyes are in good preservation, and, as usual with English effigies, open. Apparently the soldier is smock-faced, like his neighbour of Maltby. The right leg has been crossed over the left, and the feet rest on a large and boldly-designed lion. The only spur visible is a prick-spur of the ball and spike pattern. The shield is of the slightly bowed heater shape, as at Maltby, but is relatively smaller. Nineteen inches are left out of an original length of about twenty-two; the breadth at the top is fourteen inches. The shield-strap, three-quarters of an inch wide, passes under the coif. The sleeveless surcoat is of the same

cut as that worn by the Maltby figure, and is confined at the waist by a very narrow strap only half an inch in width. The pillows under the head, and their angel-supporters, again are similar to those at Maltby.

The time-battered state of this effigy does not admit of further details being given. Yet, in spite of the damage it has sustained, it still remains a memorial of great interest, and possesses some remarkable features of high artistic merit. It is, of course, not in its original place, and its position, close to the South door, exposes it to risk. It should be carefully shifted to some part of the church in which it would be more secure from further injury. A home might be found for it, at little expense, under the South window of the chancel, where in all probability it formerly lay.

REPORT ON COINS FROM ASIA MINOR

By J. GRAFTON MILNE

WITH PLATE XXV.

The coins described in this report were obtained by Professor Garstang during his first expedition to Asia Minor, and are now in the Museum of the Institute of Archaeology. At his request I have examined them and prepared the following catalogue.

In order to give as summary an account as possible, I have, in nearly all cases, described the coins in terms of the fullest catalogue of coins of the particular class in question available. This, for the majority of the Greek coins, is the volume of the British Museum Catalogue dealing with each area, and references to these volumes are given as BM. Other catalogues used, and the abbreviations for them, are :—

for Pontus, Paphlagonia, and Bithynia—Waddington, *Recueil Général des Monnaies Grecques d'Asie Mineure*. (W.)

for Ephesus—Pinder, *Ueber die Cistophoren*. (Pinder.)

for Syria (Seleucid Kings) and Armenia—Babelon, *Les Rois de Syrie, d'Arménie, et de Commagène*. (B.)

for Phoenicia—Rouvier, *Numismatique de Phénicie* [*Journ. Intern. de Numism.*]. (Rouvier.)

for Palestine—Madden, *Coins of the Jews*. (Madden).

for Edessa—Babelon, *Numismatique d'Edesse* [*Revue Belge de Numism.*, 1892-3]. (Babelon).

for Egypt—Svoronos, τὰ νομίσματα τοῦ κράτους τῶν Πτολεμαίων. (Svoronos).

for Macedonia (Kings)—Müller, *Numismatique d'Alexandre le Grand*. (Müller).

for Achaea—Clerk, *Coinage of the Achaean League*. (Clerk).

The Roman Imperial Coins are quoted according to Cohen, *Médailles Impériales* (C.); the Byzantine according to the new British Museum Catalogue (BM).

In cases where the coin here catalogued differs in minor details from that described in the standard catalogue, the reference number is given in angular brackets, and is followed by a note of the point of

difference in round brackets. A few coins which could not be treated in this manner are discussed more fully at the end.

In the later Roman Imperial coins the mint letters in the field or exergue are added in round brackets.

The places where the coins were obtained have been noted in square brackets in all instances where they were recorded : these may be of some interest, as there is a general presumption that the coins would have been found in the neighbourhood of the town where they were bought. The following abbreviations are used :—

Ain. = Aintab.	DM. = Derek Maden.
Alep. = Aleppo.	J. = Jiymeh.
Alex. = Alexandretta.	Kai. = Kaisariyeh.
Bl. = Boghazlayan.	Kil. = Killiz.
BNK = Buyuk Nefez Keui.	Y. = Yuzgat.

In the cases of autonomous Greek coins, I have added the approximate date, before the symbol of the metal, in Roman numerals, giving the century B.C. : thus, I-stands for first century B.C.

A few of the more interesting coins have been selected for illustration.

I have to thank Mr. G. F. Hill of the British Museum for his assistance in identifying some obscure specimens.

The material furnished by this collection, though of course not so valuable as if the exact find spots of the coins had been definitely ascertained, still serves to indicate the sources of currency in Cappadocia, Eastern Cilicia, and Northern Syria at different periods. It may be remarked in passing that the evidence of single coins is of practically no weight towards showing a regular connection between their places of mintage and of discovery, and negative evidence—i.e., from the absence of coins—is naturally unsound. Subject to this, it is of interest to observe that there is no trace of Persian influence among the coins found ; the earliest examples are, as might be expected, from Lydia (electrum at Bor) and the Greek colonies of the coast (silver of Teos and Celenderis at Aintab). Alexandrine silver and copper occur, as everywhere in the Eastern Mediterranean area ; and during the last three centuries B.C. the bulk of the currency was apparently supplied from the coinage of

the Seleucid kings of Syria, to which were added later the silver drachmae issued by the kings of Cappadocia. The only outside area which furnishes any number of coins to the collection is Pontus, whose plentiful copper coinage in the period of Mithridates the Great was spread widely throughout Asia Minor under his dominant influence.

Under the Roman Empire the supply of silver came mainly either from Rome or from mints which struck denarii from strictly Roman types. The local mints of Caesarea and Antioch were allowed to coin silver from their own types; but comparatively few specimens of this class are included (five of Caesarea and two of Antioch). The copper coinage, on the other hand, was entirely local for the first three centuries of the empire; the only two examples of 'Imperial' copper which occur (one of Augustus and one of Trajan) are of distinctly Syrian fabric. Most of the coins are of the mints of Caesarea and Antioch, though other towns of the three districts named above are represented, and a few coins of Antioch in Pisidia and (at Killiz and Aintab) of Edessa also occur.

The issues with local types ceased in Asia Minor with the reign of Tacitus; but the Imperial coins of the fourth and fifth centuries regularly bear indications of the mints where they were struck; and thus it is possible to trace the sources of supply. Caesarea no longer had a mint; so, naturally, the largest number of coins of this period from any one mint is from Antioch (17). Next to this comes Cyzicus (12), followed by Constantinople, Heraclea in Thrace, and Nicomedia (7 each); from Alexandria there are 4, from Thessalonica 3, from Rome 2, and 1 each from Siscia, Tarraco, and Arles. The drift of currency would thus appear to be mainly from the North-West; the small number of coins from Alexandria suggests that there was little commercial connection between Egypt and Northern Syria; but, on the other hand, hoards of coins of the fourth century from Egypt show a very large proportion of pieces from the mint of Antioch; so a more probable explanation is that Egypt at this period, as at many others of her history, was a large importer of coin.

For the first century and a half of the Byzantine coinage, the names of the issuing mints still appear; and in this period Constantinople supplies seven of the fifteen specimens catalogued,

CONTENTS OF PLATE XXV.

I.	ANAZARBUS (Diadumenianus) :	...	bronze :	...	reverse.
II.	CELENDERIS (Fifth century, B.C.) :	...	silver :	...	obverse.
III.	FLAVIOPOLIS (Elagabalus)	...	bronze :	...	reverse.
IV.	TAVIUM (Julia Domna) :	...	...	...	obverse. }
V.	" " " " " " " "	...	...	...	reverse. }
VI.	TYANA (Septimius Severus)	...	...	...	reverse.
VII.	ZEUGMA (Philippus II) :	...	...	...	reverse.
VIII.	CAESAREA (Caracalla) :	...	...	...	reverse.
IX.	HIEROPOLIS (Severus Alexander)...	...	...	...	obverse. }
	XIII " " " " " " "	...	...	...	reverse. }
X.	GABALA (Caracalla)	...	...	...	obverse. }
	XV " " " " " " "	...	...	...	reverse. }
XI.	RHOSUS (First century B.C.)	...	...	...	reverse. }
XII.	" " " " " " "	...	...	...	obverse. }
XIII.	HIEROPOLIS (Severus Alexander) ...	...	...	...	reverse [IX].
XIV.	CYRRHUS (Philippus II)	...	...	...	reverse.
XV.	GABALA (Caracalla)	...	...	...	reverse [X].
XVI.	SELEUCIA (Second century B.C.) ...	...	...	...	obverse. }
XVII.	" " " " " " "	...	...	...	reverse. }
XVIII.	SYRIA (Antiochus XI)	...	...	silver	obverse. }
XIX.	" " " " " " "	...	...	...	reverse. }



COINS FROM ASIA MINOR.

N.B. Nos. IV-V, IX-XIII, X-XV, and XVIII-XIX respectively represent the obverse and reverse of the same coins.

the remainder being of Antioch (3), Cyzicus (2), Thessalonica, Nicomedia, and Cyprus. It should be remarked, however, that the importance of Antioch had considerably diminished at this time, through its destruction by earthquake in 526 A.D. and by the Persians in 540 A.D. Alexandria also was less likely than before to furnish any coins to other countries, as the issues of this mint under Justinian and his successors were on a different basis from those of the rest of the Empire.

GREEK.

Pontus. Amisus. I Æ; W. 17⁸; W. 29¹ [Kai.]; W. 36 [Kai.]; W. 44⁷ [DM]; W. 44⁹; W. 44? [Kai.].

Kings. Polemo II Æ; W. 35 (year 19).

Paphlagonia. Sinope. III Æ; (drachm, legend defaced) [DM]: I Æ; W. 67.

Bithynia. Kings. Prusias II Æ; W. 25¹ [BNK].

Ionian. Ephesus. II Æ; <Pinder 29> (in f., ϵ , i.e. 6.) [Ain.].

Teos. VI Æ; BM. 1 [Ain.].

Caria. Cos. I Æ; BM. 99.

Pamphylia. Side. II/I Æ; BM. 64 [Kai.]; BM. 66.

Pisidia. Antiochia. Caracalla Æ; <BM. 42> (O. IMPCAESMAVR ANTONINVS A: R. G ENCLCAE AN TIOCH) [Bor]: Gordianus III Æ; <BM. 87> (O. Head r.: R. CAESAN TIOCHCOL): Philippus II Æ; <BM. 118> (R. ANTI OCHI COL, in field, S R).

Cilicia. Aegeae. II/I Æ; <BM. 12> (R. ΔP in field) [Ain.].

Anazarbus. Diadumenianus Æ; (see below, p. 96) [Ain.] (Plate XXV, 1).

Celenderis. V Æ; <BM. 4> (O. type 1) [Ain.] (Plate XXV, II).

Flaviopolis. Elagabalus Æ; (see below) [Ain.] (Plate XXV, III).

Soli-Pompeiiopolis. III/II Æ; <BM. 37> (R. M and H in field): I Æ; <BM. 54> (R. PO in field).

Tarsus. Gallienus Æ; BM. 327.

Elaeussa Sebaste. I Æ; BM. 5 [Kai.].

Lydia. Kings. Alyattes? El; BM. 2 [Bor.].

- Sardis.* II Æ; <BM. 10/21> (R. ♀ in field); BM. 48 [Kai].
- Phrygia. Apamea.* I Æ; BM. 44.
- Epikteteis.* I Æ; BM. 7.
- Galatia. Tavium.* Julia Domna Æ; (see below, p. 96) (Plate XXV, iv, v).
- Cappadocia. Kings.* Ariarathes IV Æ; BM. 6? [Y.]; BM. 9; BM. 16?: Ariobarzanes I Æ; <BM. 6> (R. —MAIOY, in field, AF) [DM]; <BM. 14> (R. in field ♂ and ? KE) [DM]: Ariobarzanes III Æ; BM. 1: Ariarathes X Æ; BM. 2 [Bl.]; Æ; <BM. 4> (R. [BA]ΣΙΑΕΩΣ [AP]ΙΑΡΑΘΟΥ) [Bor.].
- Caesarea.* Vespasianus Æ; BM. 17 [Bl.]: Trajanus Æ; <BM. 53> (20 mm.): Hadrianus Æ; BM. 140: Antoninus Pius Æ; (see below); Æ; <BM. 164> (R. KAICAPETH A ΠΤΑΙΕΤΙ): Lucius Verus Æ; (see below): Caracalla Æ; (see below); Æ; <BM. 272> (R. ΜΗΤΡΟΠ KAICAPETH, no garland); <BM. 274> (R. ΜΗΤΡΟΠ KAICAPIA, no star, altar garlanded) [Ain.]; (see below) [Bor.] (Plate XXV, viii): Severus Alexander Æ; <BM. 309> (O. AVKCEOV AΛ— R. ΜΗΤΡ Ο Κ AICA); <BM. 318> (R. ΜΗΤΡ Ο Κ AICA) [Bor.]; <BM. 330> (O. —ΞΑΝΔ, bust laur., R. ΜΗΤΡΟ KAICAP); <BM. 330> (O. —ΞΑΝΔP, bust laur., R. ΜΗΤΡΟ KAICAP) [Ain.]; <BM. 332> (O. —CEOV AΛEΞAN, R. ΜΗΤΡ Ο Κ AICAP); <BM. 334> (O. —ΑΝΔP, R. — | AICAPIA | CNΕΩΚ | ΕΤΖ); <BM. 336> (R. —CAP): Gordianus III Æ; <BM. 344> (O. AVKMANT ΓΟΡΔΙΑΝΟCCΕ, Head r.); BM. 346 [Bor.]; BM. 346; <BM. 346> (R. ΜΗΤΡΟKAICBNΕ).
- Tyana.* Septimius Severus Æ; (see below, p. 97). (Plate XXV, vi).
- Commagene. Zeugma.* Antoninus Pius Æ; BM. 2 [Ain.]: Philippus II Æ; BM. 45 [Ain.]. (Plate XXV, vii).
- Cyrrhestica. Cyrrhus.* Antoninus Pius Æ; <BM. 9> (R. in field, A): Philippus II Æ; BM. 34 [Ain.]. (Plate XXV, xiv).
- Hieropolis.* Severus Alexander Æ; (see below, p. 98). (Plate XXV, ix, xiii).

Seleucis and Pieria. Antiochia. Pseudo-autonomous Æ; <BM. 26> (R. [K]AIAVTO-); BM. 33 [Kil.]; BM. 41 [Kil.]; <BM. 47> (R. in field ? cornucopiae) [Kil.]; BM. 48 ? [Kai.] BM. 51 ? [Kil.]: Proconsular Æ; BM. 63 [Kil.]; BM. 63; BM. 69 [Ain.]; BM. 71 [Ain.]; BM. 76; BM. 87; BM. 87; BM. 102: Augustus Æ; BM. 135: Tiberius Æ; BM. 159 [Kil.]: Claudius Æ; BM. 167 [Kil.]: Nero Æ; BM. 170 [Bl.]; Æ; BM. 183 [Kil.]: Trajanus Æ; BM. 281 ? [J.]; <BM. 282> (R. I below): Antoninus Pius Æ; <BM. 325> (O. head bare) [Kil.]: Diadumenianus Æ; <BM. 408> (O. —OC, R. pellet instead of star) [Kil.]: Elagabalus Bill; <BM. 420> (R. eagle's head r.); Æ; <BM. 426> (O. —KAIMAV ANT—) [Kil.]; <BM. 436> (O. A[]NTΩNIN O C, Bust r. laur.) [Ain.]; <BM. 438> (O. AVTKMAV ANTΩNINOC, Bust r. bareheaded) [J.]; <BM. 457> (O. —AVPH ANTΩNEINOC, R. —XЄΩ NMHTKO): Severus Alexander Æ; <BM. 468> (O. AVTKAI []ЄΞANΔP C, Head l., rad.) [Kil.]; <BM. 482> (O. —ANΔPOC) [Kil.]: Philippus II Æ; BM. 564 [Kil.].

Gabala. Caracalla Æ; <BM. 13> (O. AVKAIMAP ANTΩNINO NOC ЄЄ) [Ain.] (Plate XXV, x, xv).

Laodicea ad Mare. Antoninus Pius Æ; <BM. 73 ?> (R. in field l. ? Λ).

Rhosus. I Æ; (see below, p. 98). (Plate XXV, xi, xii).

Seleucia Pieria. II Æ; <BM. 11> (R. above, BYK) [Alex.] (Plate XXV, xvi, xvii): Pseudo-autonomous Æ; BM. 31: Antoninus Pius Æ; <BM. 47> (O.] AIAANTΩ NEINOCЄЄB[, Head r. laur.).

Syria. Seleucid Kings. Seleucus I Æ; <B. 61> (R. B. beneath); B. 88; B. 38 [Kil.]: Antiochus I Æ; B. 153; B. 157/63 ? (monogram defaced) [Alex.]; ? : Seleucus III Æ; B. 311 [Ain.]: Antiochus III Æ; B. 396 ? : Seleucus IV Æ; <B. 479/84> (R. to l., ? Δ) [Ain.]; B. 487 ? ; B. 492 ? : Antiochus IV Æ; B. 581 [Ain.]; B. 598 [Ain.]; B. 598 [Kil.]; B. 624 [Kil.]: Demetrius I Æ; B. 726 [Ain.]; B. 726 [Kai.]; B. 726 [Kil.];

B. 733 [Alep.]; B. 733 [Kil.]: Alexander I Æ; B. 847 ? : Antiochus VI Æ; BM. 39 [Kil.]; B. 1007; B. 1011 [Ain.]; B. 1011; B. 1036 [Alep.]: Tryphon Æ; B. 1047; Antiochus VII Æ; <B. 1065> (R. sceptre below) [Kil.]; B. 1084 ? [Alep.]; B. 1097 ? [Kil.]; B. 1067 ff. (date effaced) [Ain.]: Alexander II Æ; B. 1261 ? ; B. 1271 [Alep.]; B. 1307: Cleopatra and Antiochus VIII Æ; BM. 9 [Kil.]: Antiochus VIII Æ; <B. 1370/3 ?> (date effaced) [Kil.]; B. 1378 ? ; B. 1386 ? [Kil.]: Antiochus IX Æ; B. 1475 [Kil.]; Æ; B. 1459; <BM. 29> (R. ΔΙΣ) [Ain.]: Antiochus XI Æ; <B. 1538> (R. beneath throne, P) (Plate XXV, xviii, xix): Philippus Æ; B. 1546; <B. 1555> (R., in ex., M ?) [Ain.].

Armenia. Kings. Tigranes I Æ; B. 8; <B. 8/11> (R. on rock, T) [Ain.].

Phoenicia. Aradus. IV Æ; Rouvier 4 [Ain.]: II Æ; Rouvier 210 [Ain.].

Palestine. Judaea. 1st revolt Æ; Madden 11 [Ain.].

Mesopotamia. Edessa. Macrinus Æ; <Babelon 40> (R. border of dots, no wreath) [Ain.]: Severus Alexander Æ; <Babelon 67> (O. AVTKAIMAVCEAAEΞ—, R. MHTKOAEΔ EEC—) [Ain.]: Gordianus III and Abgarus X Æ; Babelon 96 ? [Ain.]; <Babelon 97> (O. AVTOK KMANT—) [Kil.].

Rhesaena. Decius Æ; Mionnet 197 ? [Kil.].

Egypt. Ptolemaic Kings. Ptolemaeus VI Æ; Svoronos 1399.

Thessalia. Federal. II Æ; <BM. 54/60> (R. above, ΠΤΘ [ΩΝΟΣ ?]) [Kai.].

Macedonia. Kings. Philippus II Æ; (symbol defaced): Alexander Æ; Müller 1284 [DM.]; (drachm, defaced) [Ain.]; Müller 208 ? [Y.]; (drachm, defaced); Æ; (defaced) [Ain.]; (defaced): Philippus III Æ; Müller 26: Antigonus I Æ.

Achaea. Federal. Æ; Clerk 192 [Kai.]; Clerk 198.

ROMAN IMPERIAL.

- Augustus.* Æ; C. 34 [DM].
Tiberius. Æ; C. 16.
Titus. Æ; C. 309 [DM].
Domitianus. Æ; C. 236 [DM.]; C. 292 [Y.].
Trajanus. Æ; C. 9; C. 80: Æ; C. 122.
Hadrianus. Æ; C. 335; C. 1312 [DM.]; C. 1353.
Antoninus Pius. Æ; C. 872? [Kil.].
Faustina senior. Æ; C. 104.
M. Aurelius. Æ; C. 451 [Kil.]; C. 618 [Y.].
Commodus. Æ; C. 325? [DM.]; C. 387 [Y.]; C. 775.
Sept. Severus. Æ; C. 606.
Julia Domna. Æ; C. 14 [DM.].
Geta. Æ; C. 44 [Bl.].
Diadumenianus. Æ; C. 21 [DM.].
Elagabalus. Æ; C. 246 [Kai.].
Julia Maesa. Æ; C. 45 [Kai.].
Severus Alexander. Æ; C. 83 [Kai.]; C. 231 [Kai.]; C. 401 [Kai.]; C. 576 [Kai.].
Julia Mamaea. Æ; C. 17; C. 17 [Kai.]; C. 85 [Kai.].
Gordianus III. Æ; C. 120: Bill.; C. 98 [Kai.]; C. 105 [Kai.]; C. 160 [Kai.]; C. 237 [Kai.]; C. 319 [Kai.]; C. 319 [Kai.]; C. 353 [Kai.]; C. 404 [Kai.].
Aemilianus. Bill.; C. 2 [DM.].
Valerianus. Æ d.; C. 152 [Ain.]; C. 189 [Bor.].
Gallienus. Æ d.; C. 1173? [Bor.].
Salonina. Æ d.; C. 4 ($\frac{\text{VIIIO}}{\text{V}}$).
Claudius Gothicus. Æ d.; C. 136 [J.].
Aurelianus. Æ d.; C. 198 ($\frac{\text{XXI}}{\text{X}}$) [DM.].
Probus. Æ d.; C. 87 [Bor.]; C. 87 ($\frac{\text{E}}{\text{XXI}}$) [Bor.]; C. 509 ($\frac{\text{S}}{\text{XXI}}$) [Ain.].
Diocletianus. Æ; C. 34 ($\frac{\text{A}}{\text{ALE}}$) [Ain.]; C. 24 ($\frac{\text{SP}}{\text{?}}$) [J.]; C. 438 ($\frac{\text{---}}{\text{A}}$) [Bor.].
Maximianus. Æ; C. 54 ($\frac{\text{KE}}{\text{---}}$) [Y.]; C. 187? ($\frac{\text{---}}{\text{ANT}}$) [Bor.].

Galerius. Æ; C. 47 ($\frac{\text{K} | \text{E}}{\text{ALE}}$).

Constantius I. Æ; C. 20 ($\frac{\text{HT}}{\text{HT}}$?) [Bor.].

Helena. Æ; C. 12 ($\frac{\text{SMANTB}}{\text{SMANTB}}$); C. 12 ($\frac{\text{SMANTI}}{\text{SMANTI}}$).

Maximinus. Æ; C. 28 ($\frac{\text{ANT} | \text{II}}{\text{ANT}}$) [Y.]; C. 127 ($\frac{\text{SIS} | \text{I}}{\text{SIS}}$) [Ain.].

Licinius. Æ; C. 70 ($\frac{\text{SMN} | \text{E}}{\text{SMN}}$) [Y.]; C. 74 ($\frac{\text{SMANT} | \text{III}}{\text{SMANT}}$) [Bor.];
C. 97 ($\frac{\text{TARL}}{\text{TARL}}$); C. 114 ($\frac{\text{SMN} | \text{I}}{\text{SMN}}$); C. 118 ($\frac{\text{SMANT} | \text{S}}{\text{SMANT}}$) [Alep.].

Licinius junior. Æ; C. 21 ($\frac{\text{SMNA} | \text{III}}{\text{SMNA}}$) [Y.]; C. 39 ($\frac{\text{SMN} | \text{A}}{\text{SMN}}$) [Alep.].

Constantinus I. Æ; C. 91 ($\frac{\text{CONS} | \text{E}}{\text{CONS}}$) [Ain.]; C. 249 ($\frac{\text{SMHA}}{\text{SMHA}}$) [Ain.]; C. 254 ($\frac{\text{SMANA}}{\text{SMANA}}$) [Alep.]; C. 254 ($\frac{\text{CONSB}}{\text{CONSB}}$) [Kai.]; C. 254 ($\frac{\text{SMHA}}{\text{SMHA}}$); C. 254 ($\frac{\text{SMKA}}{\text{SMKA}}$) [Bor.]; C. 300 ($\frac{\text{Q} | \text{S}}{\text{SMK}}$) [Bor.]; C. 454 ($\frac{\text{SMALF}}{\text{SMALF}}$) [Alep.]; C. 454 ($\frac{\text{SMKA}}{\text{SMKA}}$); C. 454 ($\frac{\text{SMKT}}{\text{SMKT}}$); C. 454 ($\frac{\text{SMKT}}{\text{SMKT}}$) [Alep.]; C. 457 ($\frac{\text{MHTB}}{\text{MHTB}}$); C. 525 ($\frac{\text{PT}}{\text{PT}}$) [J.]; C. 716 ($\frac{\text{SMALA}}{\text{SMALA}}$); C. 716 ($\frac{\text{SMKT}}{\text{SMKT}}$) [Y.].

Constantinopolis. Æ; C. 21 ($\frac{\text{SMANI}}{\text{SMANI}}$) [Alep.]; C. 21 ($\frac{\text{SMNA}}{\text{SMNA}}$); C. 21 (?) [Y.].

Urbs Roma. Æ; C. 17 ($\frac{\text{CONSE}}{\text{CONSE}}$) [Y.]; C. 17 ($\frac{\text{CONSE}}{\text{CONSE}}$) [Ain.]; C. 17 ($\frac{\text{SMHE}}{\text{SMHE}}$); C. 17 ($\frac{\text{SMKE}}{\text{SMKE}}$) [Kai.].

Crispus. Æ; C. 41 ($\frac{\text{RS}}{\text{RS}}$) [Y.]; C. 65 ($\frac{\text{SMHT}}{\text{SMHT}}$) [Ain.]; C. 123 (?) [Y.]; C. 125 ($\frac{\text{SMANTZ}}{\text{SMANTZ}}$) [Alep.].

Constantinus II. Æ; C. 122 ($\frac{\text{SMANE}}{\text{SMANE}}$); C. 165 ($\frac{\text{SMKS}}{\text{SMKS}}$).

Constantius II. Æ; C. 39 ($\frac{\text{ANZ}}{\text{ANZ}}$) [Bor.]; C. 46 ($\frac{\text{ANA} | \text{I}}{\text{ANA}}$) [Alep.]; C. 46 ($\frac{\text{ANB}}{\text{ANB}}$) [Ain.]; C. 46 ($\frac{\text{ANAI} | \text{I}}{\text{ANAI}}$) [Y.]; C. 46 ($\frac{\text{I} | \text{I}}{\text{I}}$) [Bor.]; C. 48 ($\frac{\text{SMKB}}{\text{SMKB}}$) [Y.]; C. 48 ($\frac{\text{SMNA}}{\text{SMNA}}$) [Kai.];

- C. 92 ($\overline{\text{SMAN}\Delta}$) [Bor.]; C. 168 ($\overline{\text{SMTSB}}$) [Bor.];
 C. 335 ($\overline{\text{SMANT}}$) [Bor.].
- Valens.* Æ; C. 47 ($\overline{\text{SM RP}}$) [Bor.]; C. 47 (?) [Bor.]; C. 47 (?) [Kai.].
- Gratianus.* Æ; C. 3 ($\overline{\text{ANTE}}$); C. 57 ($\overline{\text{TES}}$) [J.].
- Theodosius.* Æ; C. 5 ($\overline{\text{CONSB}}$); C. 6 (?) [Bor.]; C. 14 ($\overline{\text{SMHB}}$) [Y.]; C. 19 ($\overline{\text{CONA}}$); C. 19 ($\overline{\text{CONB}}$) [Ain.]; C. 30 ($\overline{\text{SMK?}}$); C. 30 ($\overline{\text{SMNA?}}$).
- Honorius.* Æ; C. 26 ($\overline{\text{TESB}}$); C. 56 ($\overline{\text{ANTI}}$); C. 56 ($\overline{\text{SMKA}}$).
- Arcadius.* Æ; ($\overline{\text{SMKA}}$).

BYZANTINE.

- Anastasius I.* Æ; BM. 71.
- Justinianus I.* A; BM. 22 [Kil.]; Æ; (see below, p. 98); <BM. 107/9> (O. —NVSPPAV, R., below, Δ); <BM. 116> (R., to r., X $\frac{1}{2}$) [Kil.]; BM. 135; BM. 252 [BNK]; BM. 322 ? [Alex.]; BM. 325 [Ain.]; BM. 410 ? [Kil.]; * <BM. 419> (R. $\epsilon\lambda$) [BNK.].
- Justinus II.* Æ; BM. 89 ? [J.]; BM. 106 [Kil.]; BM. 137 [J.]; <BM. 176/9> (O. DN IVS TINVSPPA) [Kil.].
- Mauricius.* Æ; <BM. 41> (O. DNMAVRC TIBERPAPVG) [BNK]; <BM. 56> (R. on r., X $\frac{1}{2}$, beneath, Δ) [J.].
- Heraclius.* Æ; BM. 168 [J.]; BM. 273 ? [Kil.].
- Constans II.* Æ; BM. 101 ? [BNK].
- Johannes I.* Æ; BM. 16 [J.].
- Romanus III.* Æ; BM. 4.
- Theodora.* Æ; BM. 6 [Kil.]; BM. 6 [BNK].
- Constantinus X.* Æ; BM. 25 [BNK]; BM. 35 [Y.].

The following coins cannot readily be described in terms of the standard catalogues, and so must be treated in more detail:—

Anazarbus (Cilicia).

O. ΜΟΠΙΑΝΤΩΝΙΝΟCΔΙΑΔΟVΜΕΝΙΑΝΟC (commencing on l.). Bust of Diadumenianus r., bareheaded, wearing paludamentum and cuirass, showing back: border of dots.

R. Α ΝΑΖΑ ΡΒΟVΜΗΤΡΟΠΟ ΛΕΩC (commencing on l.). Two figures of Nike, winged, each wearing long chiton with diplois, facing and holding between them oval shield supported on short pole: in field, by pole, Γ Β: border of dots. Pl. XXV, i.

Æ, 29 mm., 11·11 grammes.

Aintab.

(cf. Invent. Waddington, nos. 4131/2).

Flaviopolis (Cilicia).

O. ΜΑVΠΑΝ[ΤΩΝΙΝΟC?] (commencing on l.). Bust of Elagabalus r., laur., wearing paludamentum and cuirass, showing back: border of dots.

R. ΦΛΑVΙΟ [] (commencing on l.). The Dioscuri standing, nude, bodies turned slightly outwards, heads inwards; each rests inner hand on hip, outer on spear: above heads, stars; border of dots. Pl. XXV, iii.

Æ, 23 mm., 7·37 grammes.

Aintab.

Tarium (Galatia).

O. ΙΟVΑΙΑΔΟΜ ΝΑCΕΒΑCΤΗ (commencing on l.). Bust of Domna r., draped, with hair in waves at sides and plaited flat at back: border of dots. Pl. XXV, iv.

R. CΕΤΡΟΤΑ Ο VΙΑΝΩΝ (commencing on l.). Tyche standing to front, head l., turreted, wearing long chiton and peplos, resting r. hand on rudder and holding cornucopiae on l. arm: in field, $\begin{smallmatrix} \epsilon & \zeta \\ \tau & \eta \\ & \iota \end{smallmatrix}$: border of dots. Pl. XXV, v.

Æ, 27 mm., 11·49 grammes.

(cf. Mionnet 160—a similar type except for absence of date in field of reverse).

Caesarea (Cappadocia).

O. ΑΝ ΤΩ[NΙΝΟC] CΕΒΑCΤΟC (commencing below head on l.). Head of Antoninus Pius r., laur.: border of dots.

R. VIIATB ΠΑΤΠΑΤΡ (commencing on l.). Mount Argaeus: on summit, nude figure standing to front, holding in r. hand globe, in l. sceptre: border of dots.

Æ, 21 mm., 6.54 grammes.

O. AVTOVHPOC [C]EBACTOC (commencing on l.). Head of L. Verus r. laur.: border of dots.

R. [KAICAPEΩN] TIIPATTAIO (commencing on l.). Mount Argaeus, culminating in tall peak with conical top: in ex., [E]TB: border of dots.

Æ, 21 mm., 7.80 grammes.

O. AYKMAY ANTΩNEI (commencing on l.). Bust of Caracalla r. laur., wearing paludamentum and cuirass, showing back: border of dots.

R. MHTPKAIC (commencing on l.) Mount Argaeus: in ex., ETIB: border of dots.

Æ, 17 mm., 2.92 grammes.

O. AYKAIMAYPHAI ANTΩNINOC (commencing on l.). Youthful head of Caracalla r. laur.: border of dots.

R. Agalma of Mount Argaeus on base: on either side, agonistic urn: above, CEOVH : below urns, KOI NOC: in ex., ETIT.

Æ, 28 mm., 13.07 grammes.

Bor.

(cf. Imhoof Blumer, Monn. Gr., p. 419, no. 191, and BM. 280 of Geta).

Tyana (Cappadocia).

O. AVTKACEΠ CEOVHPOC (commencing on l.). Head of Severus r., laur.: border of dots.

R. TVANEΩ[N] THTI EKACVKA (commencing on l.). Perseus standing to front, head l., nude, resting r. hand on harpe, bag slung over l. arm: in field, ET Δ: border of dots. Pl. XXV, vi.

Æ, 22 mm., 9.24 grammes.

(cf. Mionnet, 226 and Invent. Waddington, 6813. The end of the legend on the rev. is possibly -KA, as given by Mionnet, but may be a monogram.)

Hieropolis (Cyrrhestica).

O. ΑΥΤΚΑΙΜΑΡΑΥΡ ΟΕΑΛΕΞΑΝΔΡΟC (commencing on l.). Bust of Severus Alexander r. laur., wearing paludamentum and cuirass, showing back : border of dots. Pl. XXV, ix.

R. ΘΕΑC[CV] ΠΙΑCΙΕΡΟΠΙΟ ΑΙΤΩΝ (commencing on l.). Atergatis, wearing turreted headdress, chiton, and peplos, seated l., with head turned r., on lion walking r.; in r. hand, sceptre : border of dots. Pl. XXV, xiii.

Æ, 27 mm., 15·00 grammes.

(cf. Mionnet 53.)

Rhosus (Seleucis).

O. Bust of Tyche of the city r., veiled and turreted : behind, palm : border of dots. Pl. XXV, xi.

R. ΡΩΣΕΩΝ
ΘΗΣΙΕΡΑΣ (on r. downwards) ΚΑΙΑΣΥΛΟ[] (on l. downwards). Columnar figure standing to front, crowned with horns, holding in r. hand harpe, in l. thunderbolt : base flanked on either side by bull couched outwards, above which pilei surmounted by stars : whole in wreath. Pl. XXV, xii.

Æ, 20 mm., 8·30 grammes.

(cf. Imhoof Blumer, Monn. Gr., p. 440, no. 8. The legend on his specimen ends OY.M, and there is a monogram under the base of the statue : the specimen now described is struck on too small a flan, but it does not appear to have had the monogram.)

Justinianus I.

O. ΔΝΙΥCΤΙΝΙΑΝΥCΡΑΥΓ (commencing on l.). Bust of Justinianus r., diad., wearing paludamentum and cuirass.

R. ΒCΘΜ CORDI (commencing on l.). I, above and on either side of which a cross : in ex., ANTI : border of dots.

Æ, 21 mm., 4·56 grammes.

(cf. Pinder and Friedlander, Die Münzen Justinians, p. 38.)

NOTES UPON THE FRAGMENTS OF HITTITE CUNEIFORM TABLETS FROM YUZGAT, BOGHAZ KEUI

(WITH PLATES XXVI-XXVIII)

By THEOPHILUS G. PINCHES


I.

The upper left-hand corner (obverse) and lower left-hand corner (reverse) of a large and well-baked tablet. Height 10 centimetres, width 38 millimetres. Colour grey. The obverse has portions of twenty-four lines of writing, divided into six paragraphs of seven, two, four, two, three, and six lines respectively; the second and third being separated from each other by a double ruled line. The reverse has the remains of twenty-seven lines of writing, and the edge below two lines, the whole divided by ruled lines into fifteen paragraphs of lengths varying from one to three lines. The text on the reverse and edge gives the remains of the last column.



Obverse.

Lines 1 and 2. Alternative renderings would be 'the city Hatti' (or 'the city of *Hattu*') and 'the gods of the city Hatti' (or 'of Hattu').

Line 4. Possibly 2 LI-IM 5 MEAT, '2 thousand 5 hundred.'

Line 5. The character beneath *li* (line 4) may be a form of the Assyrian , *lul*, etc. With the pronunciation of NÂRU it stood for 'chanting priest,' or the like.

Line 7. After the lost first word (or words) there is an erasure, and the word following that (the only one on the line) seems to be *i-ia-an* (?). Compare *i-ia-an-zi* in the large fragment from Yuzgat (Obverse, line 7).

Line 8 (2nd paragraph). The first character, of which only part of a 'corner-wedge' remains, may have been , *ti*, or , *ka*, and seems to be followed by the character having the value of *kar* or *gan*. The remaining characters read *ša SUKKAL ŠARRI an-da*, the words in small capitals being the Assyrian for 'minister (or messenger) of the king.'

Line 9. If the characters after '100 (or '200') *šuši*' have their old Babylonian meaning, the amount would be '85½,' measured by the *qa*. The word on the break seems to be *tarqa*—'185½ (285½) *qa* of *tarqa*.' The double division-line probably indicates a complete change of subject.

Line 10 (3rd paragraph). The third character may possibly be *sag* (= *rêšu*, 'head')—*Ana rêšê ilāni āl Ḫatti*, 'to the chiefs (and) the gods of Ḫattu' (an Assyrian phrase).

Line 11. The space after *kue* should be a little wider. After this damaged portion is the last wedge of (apparently) the fourth character of the line. This is followed by *dur-bi* (or *be**) and a word in the plural. The broken character at the end may be completed as *ARKI-pa*, probably 'afterwards' (see No. II, lines 11 and 12).

Line 12. As an Assyrian phrase this line would read *lišanu ša āwēlē šangi Ištar ša*, 'the tongue of the men of the priest of Ištar of . . .'

Line 13. The first character may be <, *u*, *Δ*, *ḫi*, or *ḡ* *gam*, and the second seems to be *lu*, making the word *ulu* or *ḫilu*. The third and fourth are *kuiš*. The final character (after <|> is *ḡ*, either *gam*, or part of some other character.

Line 16 (5th paragraph). The first character is *šar*, making the word *šarraš*. A single wedge follows, with four wedges (𐎶) after it. As upright wedges preceding units generally stand for *išten šušu* ('one soss'), the number is probably '64'—'an amount of 64 ingots (lit. 'bricks') of silver for the god . . .' (or 'goddess').

Line 17. 'An amount (?) of 4 ingots of silver for the god . . .' (or 'goddess').

Line 18. The third character is apparently *šar* : *Šarpa-Lamassi* or *Šarḫat-Lamassi*.

Line 20. The name of the god is written *U-sukkal-tim* (?) *-gal* (?). Is it possible to identify *U-sukkal* with *Pap-sukkal*, the minister of Enlila, 'the older Bel'?



Line 21. The first character is doubtful, but looks like that used for *Ištar* (see line 12, and compare No. II, line 10).

Line 23. The first word is *šar-aš*, apparently for *šarraš*, as in lines 19 and 20. The character after >|> is written like the Assyrian 𐎶, *liš*.

* 𐎶, *bi* ; >|>, *be*.

Reverse.

Line 1. Alternative reading: 1 *ma-na*, 'one mineh.'



Lines 2-5.  differs from the character for city on the obverse, and may, therefore, be *zu* (Assyr. ). In this case the reading in line 2 would be: '1 *zu-šu*-'*; in line 3: '14 *zu-su*-'* (see lines 4 and 5); line 4: '10 *zu-su-ri* (?)'; line 5: '20 *zu-su ut*.'

Line 6. 'The daughter of Pal-lu (?)'.




Line 8. The name is that of a people or class—probably *Limeyaš* (the first character after the determinative prefix differs from *šar* in lines 16-20 of the obverse, otherwise *Šarmeyaš* would be possible).

Line 9. The '3 bronze tablet(s)' are followed by the numeral '2.'

Line 10. *Nu* (? Assy. *šALMU*) followed by the ideograph for '1' with *en*, its Semitic phonetic complement (*išTEN*). Possible rendering '1 image.' The character following may be *it* (?).


Line 11: '2 *tapal*.' Line 12:  is possibly the Babylonian , *na(m)gar* or *lamga*,* and is followed by *un*. Line 13: *šu na*. Line 14: '5 *zu*.'

Line 15. An upright wedge followed by *en* (? the Semitic *išt-en*, 'one'—see line 10), or the beginning of a man's name: *En*-*.*.

Line 16. The first character is possibly , *ši*, or *PAN*, 'before'; or, if the horizontal wedge be not really intended, '11  *an*-'*, or 'and' with the name of a man following.  may be read either *an*- (*An*-) or as the determinative prefix for the name of a god.


Line 17: '1 bronze . . . ' Line 18: '1 *ma*-' (? *mana*—see line 1 and the edge, below). Line 19: '2 *zu*-'*. Line 20: '1' (wooden object or tree). Line 21: '1 image (?) of . . . ' (cp. line 10). Line 22: '1 *zar*-'*. Line 23: '5 *šittar*.' Line 24: '1 *šittar*.' Line 25: '2 heads of . . . '

Line 26. '1 bronze *tûtiš*.'

Line 27. The numeral  is very carelessly formed. The characters which follow are *uru-šu* ('bronze + hand') *kin-gal*, which might be rendered 'offertory-dish of the *kin-gal*.' *Kingal* is Sumerian, and I have regarded it as probably meaning 'steward' (*Amherst Tablets*, vol. I, p. 32: *kingal turturêne*, 'the junior stewards,' and *kingal dingirêne*, 'the steward(s) of the gods'). The absence of the

* See also No. II, line 3. In Assyro-Babylonian texts, *na(m)garu* means 'carpenter.'



determinative for 'man' in all three cases implies that the *kin-gal* was some object or utensil, but the accompanying expressions in the text referred to indicates a title or description of an office.




The edge seems to give a kind of colophon. The first character looks as if it might be , *kam*—perhaps the Hittite word for 'total,' followed by '7 *mana*.' In the second line on the edge the first character is doubtful. After that, however, are clear traces of ŠARRÂNI *šū-ši* (?), 'kings a soos (?)'—'60 kings,' which would seem to indicate that the text is a tribute-list.




II



The lower left-hand portion (obverse) of a tablet of moderate size, inscribed with the left-hand halves (nearly) of sixteen lines of very small writing in six paragraphs of four, one, one, three, three, four lines of writing, the first and last paragraphs being incomplete. The reverse is blank, but has at its upper end about $\frac{7}{16}$ in. of the ruled line indicating the end of the text, and showing that the amount of inscription thereon was small. The height of the fragment is 49.5 mm., and the width 51 mm. Colour grey, resembling unbaked clay.


Line 1. The first character is the sign for 'king.'

Line 2. The sign *pi* is written in two ways,  and —it remains to be seen whether they indicate different syllabic values.

Line 3. It seems probable that  is *du*. For , see No. I, line 12 of the reverse—it is possibly a form of , *nagar* (*namgar*), *lamga*.

Line 4. Here we have again , as in the preceding line, followed by . The last character but two may be , *hal*, as the thick end is apparently doubled.

Line 6 (paragraph 3). It is doubtful whether the first character is *ti*, as the left-hand 'corner-wedge' should be attached to the lower part of the upright (, as in the preceding line, not ). The 6th character is ŠEG, 'to be lucky,' or PAQID (Professor Sayce).

Line 7 (paragraph 4). There is a 'corner-wedge' of the character preceding ŠAR, 'king.' The fourth sign is *gan* or *kar*. The seventh character is doubtful—besides , *ma*, is possible. The character after ŠAR is *ma*. Here we have *Walas* again, followed by the city *Piṣab* (?), or *Waṣab* (?).

Line 8. . . . *nu(?)*-um *kiš-kat-ta-ri na-at-mu*, etc.

Line 9. Another possible division of the words is *kar* (or *mur*)-*na-in na-at-ta-ša*. The character at the end seems to be *riš* (*s*) or *sag*.

Line 10 (paragraph 5). The last character but two seems to be *na*, notwithstanding that its form differs from its other occurrences. I feel inclined to divide as follows: *ina âl Alalḫa ana îlu Ištar*, 'in the city of Alalḫa, to Ištar'. It is noteworthy that *i-na* here is written as in the inscriptions of Tiglath-pileser I.

Line 11. The character after 𒌦 , *lum*, is the same as in line 13, namely, the archaic form of 𒌦 , *bêltu*, 'lady.' *An-lum BÊLTI-IA*, 'the divinity my lady,' apparently refers to Ištar. Notwithstanding its difference of form, the next character may be 𒌦 , *iš* (*iš-tap-pa-an*). The character at the end is apparently 𒌦 , *kan* (or *ḫi*).

Line 12. The first character is doubtful—it may be a badly-formed 𒌦 , *en*.

Line 13 (paragraph 6). The third character is *BÊLTU*, as in line 11. The last character of the line seems to be the same as that at the end of line 10, but more carelessly written. *Ana Šamši-Ištar* (?) 'to Šamši-Ištar,' suggests the existence of a compound hermaphrodite deity, of which the Sun-god was the chief member. With this we may compare the Sumerian *Utu* and *Aa*, the sun-god and the moon-goddess (Phoebus and Phoebe), with a more decided leaning, however, to Dumuzi and Ištar (Tammuz-Adonis and Venus).

Line 14. The character before *ša* seems to be *ku*, and the last character of the line seems to be *si*.

Line 15. The imperfect character at the beginning looks like 𒌦 , perhaps with the value of *lib* or *rib*. The last character but two is apparently the same as the first complete character in line 3, and the fifth in line 4. Its value is possibly *du*, which would make the last word of the line *duwar*—that is, if the last character be really *ar*, and not two characters (*šu-ri*), for the *ar* of the preceding word is written fully as 𒌦 , not 𒌦 .

Line 16. The first character may be 𒌦 , as in line 6. The third is either *ma* (*ku*) or 𒌦 , *giš*. The fourth is rendered imperfect by a black stone (?) embedded in the clay, which made it impossible for the scribe to impress the interior and lower wedges. If the preceding character be 𒌦 , the determinative prefix for 'wood,'

the character having the stone in it may be *ku*, and with the plural *ki-a*, the group would mean 'weapons' (Assyro-Bab. *kakkē*). The last character would seem to have been *ru* (*𐎠𐎺*).

III

A fragment from the left-hand part (? of the obverse) of a tablet 47·5 mm. high by 55 mm. wide. Colour light greyish red. The remains of the eleven lines of writing read as follows:—

- | | |
|--|--|
| 1. an (?) | 7. <i>tu-u-ya-ma BILTU</i> (?) |
| 2. -ya | 8. <i>Ya-zi-bi-in-na</i> |
| 3. <i>U</i> (?) <i>-ku-un tu-ya ka-</i> | 9. . . . <i>GIŠ eri-</i> ' <i>t[u]</i> ' |
| 4. <i>grš</i> (ideograph) <i>ti-it-ti-e u-</i> . . | 10. [<i>zi-b</i>] <i>i-in-nu e-</i> |
| 5. <i>zi-bi-in- nu un-tu-ya</i> | 11. |
| 6. <i>ya-zi-bi-in- na z[i ?]</i> . . . | |

Line 7. If the incomplete character at the broken end be really the Hittite form of the Assyro-Babylonian *biltu*, it implies that the text refers to the receipt of tribute.

Line 9. Assuming that *GIŠ eri* be for *GIŠ êrin* (*êrinu*), 'cedar' is the wood referred to. The word which followed was probably *tūyama*.

IV

Part of the right-hand portion of the left-hand column (? of the obverse). Height 43 mm., width 38 mm. Remains of eight lines in two paragraphs.

Line 1. The final character seems to be *si*.

Line 3 reads . . . *me-iŠTAR MÂR* 𐎠𐎶𐎠𐎶 *Ku-wa-a[r . . .]*, . . . *me-iŠtar* son of *Kuwar-* . . . For *iŠTAR*, see I, line 2; II, lines 10, 13.

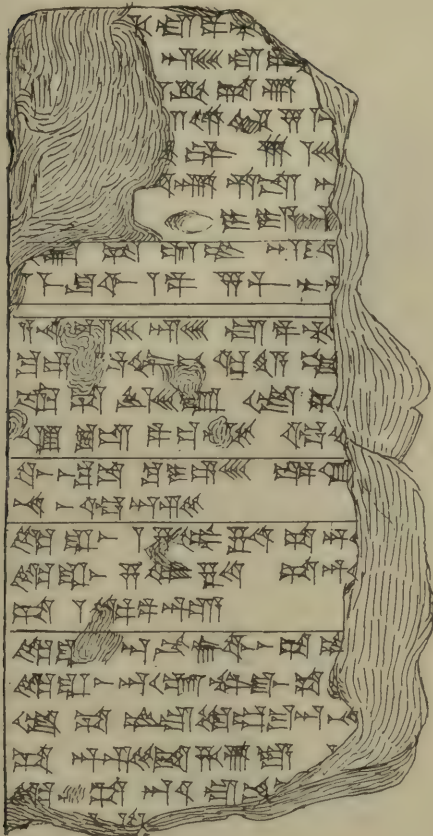
Line 4. The last character but one seems to be rather *îšid* than *ka*. *Îšid-sa* in Assyro-Babylonian would mean 'her foundation.'

Line 5. The last character but one is probably *su*.

(The apparent depth of the ruled line dividing the columns was 2·5 mm., the real depth being 2 mm. This is excessive, and accounts for the clean break.)

V

Part of the middle of a tablet (? obverse) 73·5 mm. high, 39·5 mm. wide. Warm grey yellow. Remains of twelve lines of writing in three paragraphs, the second containing five lines of text, and divided from the third by a double ruled line. The following is a transcription of this:—

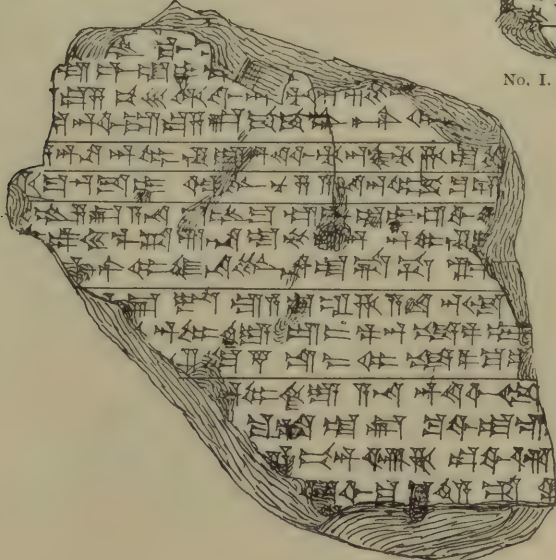


No. I.

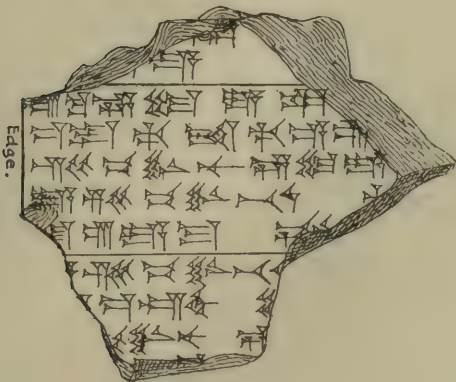


Edge

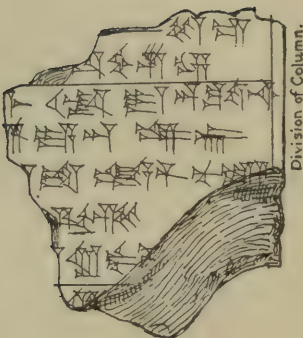
No. I. REVERSE.



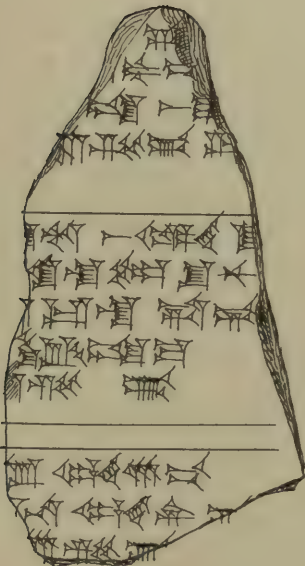
No. II.



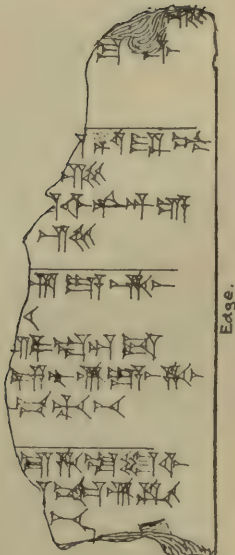
No. III.



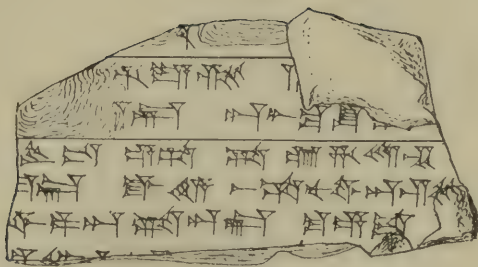
No. IV.



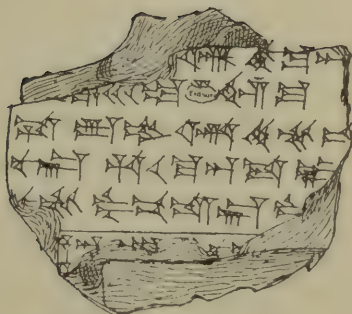
No. V.



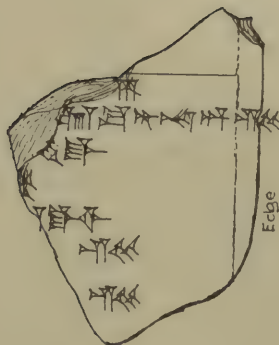
No. VI.



No. VII.



No. VIII.



No. IX.

1. ta	7. . . . ib-la ta - ta-
2. ub-bi	8. . . . turahu iḥallip-ma
3. iṣid aš-ra (?)	9. . . . [lib]bi (?) ZI-GA*
4. . . . libbi ZI-GA* u-	
5. . . . [im]mera ina muḥ-ḫi KÙ*	10. . . . ru (?) muruṣ lib-bi
6. . . . ki-la-li - šu-nu	11. . . . -na muruṣ ni-ga (?)
	12. . . . libbi ZI-GA*

Probable renderings of some of the lines:—

Lines 4, 9 and 12: 'from the midst he will depart' (*ina libbi itebbī*).

Line 5: 'he will set a sheep thereon' (*immera ina muḥḫi ušēšab*).

Line 6: 'both of them.'

Line 8: '[the skin of] an antelope ([*mašak*] *turaḫi*) he will put on, and.'

Line 10: 'sickness of the heart.'

These phrases show, that the text contains incantations or ceremonies against sickness. It is a reproduction of an Assyro-Babylonian† original, and is not a Hittite text. The writing is exceedingly good, and more archaic in style than the other inscriptions.

VI

Part of the right-hand edge (? obverse), 71 mm. high, 22·5 mm. wide. Grey. Ends of fourteen lines of writing, which in some cases finish on the edge:—

1. -zi	8. -u (?)
2. ma-gal	9. SAG-DU-an-da
	10. un-tar-ri-ia-aš ḫa-aš
	11. bi-ti-be
3. ša (?) -ra-šum	
4. -zi	12. su ḫa-at-tu-ši
5. Ši-ni-Lamassi	13. ne-ri-ig
6. -zi	14. be
7. [un-tar]-ri-ia-aš ḫa-aš	

Line 2. *Magal*, as an ideograph, means 'greatly' (from the Sumero-Akkadian).

Line 5. Or, with Professor Sayce, *Limni-Lamassi*.

Line 9. *SAG-DU-anda*, 'head' (Assyr. *qaqqadu*) with a termination (?).

* Sumero-Akkadian values.

† Professor Sayce points out that the text seems to be in Assyrian.

VII

Fragment from the middle (? reverse) of a large tablet, 34 mm high, 60 mm. wide. Grey on surface, reddish beneath. Portions of six lines of writing in three paragraphs. A hard piece of incrustation is attached to the top right-hand corner (12 mm. by 22), and there is a small piece at the lower corner.

Line 3. This seems to read . . . *ga an Hal-ba-šu* or *Hal-ma-šu* (a god).

Line 4. The final word is probably *laḫ-ka-li-en*.

Line 7. The traces of the first two characters suggest 𐎶 𐎶 , *giš-mi*, or, perhaps better, 𐎶 𐎶 , *an-lum*, 'god.'

The text is in characteristically Hittite style, with horizontals mostly light, and heavy down strokes.

VIII

Fragment from the middle (? reverse), 39.5 mm. high, 45 mm. wide. Pinkish yellow. Portions of seven lines of writing in two paragraphs.

- | | |
|--------------------------------------|--------------------------------------|
| 1. ar-kam ma-an . . . | 5. mu-ub-li-iš-gan ub- . . . |
| 2. . . . e-eš at (erasure) im-ma . . | |
| 3. . . ša BÎT ŠARRI ar-kam-mu-uš | 6. a-an |
| 4. . . . nu-gan ḫu-u-ku-an-da as . | 7. |

The recurrence of *gan* suggests that it may be a termination.

IX

Fragment of the right-hand edge (? obverse), 44 mm. high, 32.5 mm. wide. Greyish pink and pinkish white. Remains (ends) of seven lines of exceedingly clear writing beneath a ruled line.

- | | |
|---|---------------------------|
| 1. -ri (or part of -ar) | 5. [?]E].GAL-lim. |
| 2. laḫ-ma tar-ba-an-zi | 6. -zi |
| 3. ŠAR-GAL (OR GU-GAL) | |
| 4. . . . (part of 𐎶 or a character ending similarly) | 7. -zi |

Line 2. *Laḫme* may be the well-known divine being of Babylonian mythology. *Tarbanzi* is to all appearance Hittite.

Line 3. *Gu-gal* (Sumero-Akkadian) means 'leader' or 'director.'

Line 5. [𐎶]*galli*^m would be the word for 'palace' with the Assyro-Babylonian ending and mimmatum.

A TOMB OF THE EARLY IRON AGE, FROM KITION IN CYPRUS, CONTAINING BRONZE EXAMPLES OF THE 'SIGYNNNA' OR CYPRIOTE JAVELIN

BY JOHN L. MYRES

WITH PLATE XXIX

Not long ago, I had occasion to discuss the known examples of a peculiar type of Early Iron Age spear in connection with the well-known passage of Herodotus (Book V, ch. 9) about the Cypriote javelin, *sigynna*.^{*} At that time I was not able to give as full particulars as I should have wished of one of the most important series of Cypriote *sigynnae*, or to figure, in illustration of my argument, any of the most characteristic forms. Subsequently, however, I have been enabled, by the courtesy of Dr. Max Ohnefalsch-Richter, who first reported the discovery, and of the Director of the Museum of Leipzig, in which the objects eventually found a home, to publish the whole tomb-group, of which these early spear-heads formed a part, and to try to determine its age.

The tomb in question appears to have been discovered before March, 1895, when the objects contained in it came into the hands of Dr. Ohnefalsch-Richter. He was able to satisfy himself that the objects formed part of a single tomb-group. The collection consists of the following articles, numbered as they stand in the photographs. Their description in detail is as follows:—

Objects of Bronze (Nos. 1-5, 14, 15, 18) and Stone (Nos. 6, 7).

Numbers 1, 2 and 3 are spear-heads of bronze, 0·90, 0·83, 0·82 m. in length respectively, of a very peculiar type, the importance of which will be discussed separately below. The socket of each is long and conical, formed by beating out the end of the original ingot into a thin plate, and bending this round until its edges meet

^{*} *Anthropological Essays presented to E. B. Tylor*, Oxford, 1907, p. 255 ff.

in an imperfect weld. The tapering end of the socket passes directly into a very long point, originally quadrangular in section, with sides practically parallel for the greater part of its length, after which it tapers very gradually to a sharp point. There are no flat 'wings' or 'flanges' at all, so that the whole spear-head presents rather the appearance of a skewer or spit for kitchen purposes, than of a military weapon.

So far as I know, these are the only *bronze* examples of this type of spear. Iron ones, however, were found by Dr. Ohnefalsch-Richter in his excavations at Tamassos in Cyprus in 1889, and will be published some day, it is hoped, in his long-delayed volume on 'Tamassos and Idalion.' Some of them are briefly noted under No. 3526 ff in our *Cyprus Museum Catalogue* (Oxford 1899), which I will quote hereafter as *C.M.C.* Another example in iron, very similar, and (to judge from associated objects) probably from the same series, is in the Fitzwilliam Museum at Cambridge.

Numbers 4 and 4a. Spiral rings of thick bronze wire, only one of which is figured in the plate, 0.075 m. in diameter. The ends of the spiral overlap for a distance of about 20°, after the manner of Cypriote bracelets. The diameter of the rings appears small at first sight, but is not unusually so, in comparison with other early bracelets of this form: we have always to remember the small stature and slight build of the population of most parts of the Mediterranean region, and also the probability that such ornaments may have been intended for a feminine wrist. The ends of each bracelet are decorated with three separate series of bead-like rings engraved on the bronze. This ornament is common in Cypriote bronze jewellery, and characteristic of its earlier phases, from the close of the Mycenaean Age to the early part of the Hellenic.

Number 5. Part of a bronze fibula, or safety-pin, 0.07 m. in length, of a peculiarly Cypriote type of early date. In this type the bow, instead of being curved in a generally convex form, consists of two symmetrical limbs which are each slightly concave in profile, and are joined at a prominent knob which occupies the middle joint of the bow. This knob is carefully modelled in a roughly four-faced form, rather like a bishop's mitre, and is separated from the two divergent limbs below it by a circular collar or disc of some width, which runs out to a sharp edge.

I must reserve till a later paper (p. 138) the full discussion which this interesting type of fibula deserves: it is one of the standing puzzles of Cypriote archaeology. Its age was discussed some while ago by Undset (*Zeitschrift für Ethnologie*, 1889, p. 216, fig. 21), but on very imperfect evidence; and it has been described in that remarkable book, the British Museum's *Excavations in Cyprus*, as 'characteristic of the sixth and fifth centuries.' I hope to show in what follows that, if this statement were true, this fibula would be at least three hundred years younger than any other object in the tomb group: and I note here, in passing, that conclusive evidence for a much earlier date was provided by the Museum's own excavations at Amathus and Curium, which that book was designed to describe. The precise position of this type of fibula in the history of Cypriote culture is, however, not yet clear: and as its own position is doubtful, it is clearly of no great value in determining the age of this tomb-group.

Number 6. A large bead or small spinning-whorl of stone, 0.025 m. high. This type of whorl or bead is very common in the Late Mycenaean tombs of Cyprus and in the earliest periods of the Iron Age. Then they become very rare, and disappear before the introduction of Oriental art into Cyprus, which is commonly and rightly dated about 700 B.C. Compare *C.M.C.* 709, Plate III, and Ohnefalsch-Richter, *Kypros, the Bible, und Homer*, Vol. II, Plate CLXXI, fig. 140. Similar beads have been found also in tombs at Mycenae and in very early Iron Age tombs in Greece.

Numbers 7 and 7a. Whet-stones of a rather flat, narrow, nearly rectangular form, perforated for suspension near one end. No. 7 is 0.015 m. long by 0.06 m. broad. No. 7a (not figured in the Plate) is 0.09 m. long and 0.02 m. broad. These whet-stones occur as a rule only in Bronze Age tombs; they are, however, very occasionally found in the earliest tombs of the Iron Age.

At this point reference should be made to the only other metallic objects included in this tomb-group; the bronze bowls, Nos. 14, 15, below; and the small bronze spear-head, No. 18.

Number 14. A bronze bowl of somewhat flattened form, and well-rounded profile with very slight thickening at the rim. Its diameter is 0.13 m., and its height 0.05 m. It is badly corroded, and was broken after its discovery, but has since been put together

again. The surface is so much destroyed that it is impossible to discover whether it originally bore any engraved ornament or not. The form is one which occurs occasionally in Cypriote tombs of the earliest Graeco-Phoenician period. It is more closely related to native types of earthenware bowls than to the shallower forms characteristic of the engraved metal bowls of the Orientalising period, which sets in about 700 B.C.

Number 15. A bronze bowl, nearly hemispherical (or rather paraboloid) in form, but slightly flattened to form a standing base. The rim has a very slight thickening on the inner side to give additional strength. The diameter is 0.125 m. and the height 0.05 m. This bowl, like the preceding, is somewhat corroded, but not so severely. It does not seem to have borne any engraved ornament. The form resembles closely a common form of clay bowl of the Early Iron Age in Cyprus.

Number 18. A short bronze spear-head with tubular socket, imperfectly welded down the seam, and partly re-opened by corrosion. The socket is short, and tapers away rapidly to an almost imperceptible mid-rib between rather thick and clumsy wings, forming a blade of very long oval outline: that is to say, the widest part is fully half-way down the wings, and the outline is very flat at the sides, and blunt at the point. There are traces of a slightly-raised collar round the socket just at the base of the blade. This type is of a form and workmanship characteristic of the later Mycenaean Age. Compare *C.M.C.* 3801, from an Early Iron Age tomb at Amathus; *Cesnola Collection, Bronzes*, Nos. 36-41.

Pottery

Number 8 (two views, *a* and *b*). A hand-made flask with long oval body. At one end is a heavy standing base, and at the other a rudely-fashioned neck with a small perforated handle or string-hole at the junction of the neck and the body. This vase is very rudely modelled by hand in the common creamy-white clay of Cyprus, and has simple geometrical decoration in dull black paint, consisting of longitudinal gores, filled with systems of zig-zag lines, forming a chevron ornament. The paint is as usual quite dull, and a good deal destroyed. The vase is of a form which begins in the middle

period of the Bronze Age of Cyprus, probably as early as 2000 B.C., and persists as an article of common use through the late Bronze Age, alongside of the finer wheel-made fabrics which mark the introduction of Mycenaean or Late Minoan culture into the island. The presence of a standing base, and the careless, clumsily-modelled form, show that the vase belongs to a very late period of Bronze Age ceramic.

Numbers 9, 10, 11, 12, 13 and 16. A series of two-handled and high-stemmed drinking-cups, with various ornaments characteristic of the period of transition from the latest Mycenaean Age to the Early Iron Age.

Number 10 probably resembles most nearly its Mycenaean prototype, the foot being the same height as the bowl, and the rim of the latter slightly incurved. The profile of the bowl is, however, already heavier and less pleasing than its model. The foot and the lower part of the bowl are decorated with simple bands of black paint. On the upper part of the bowl are the wavy lines which are so characteristic of this period of Cypriote art.

Number 13 marks a further stage of degeneration. The foot is much higher and more clumsily modelled, with a slight swelling half-way up the stem, and the base is disproportionately small. The bowl is bell-shaped, with the edge slightly turned outwards, and it is set inaccurately and unsymmetrically upon the stem, into which its outlines pass quite gradually. The ornament, like that of No. 10, consists of plain bands on the lower part of the bowl, with a series of wavy lines above.

Number 12. The transition to Early Iron Age form is here almost complete. The stem is modelled like a baluster, in three distinct stages, with moulded outline. The foot is still small and flat, but the bowl begins to be angular, and approximates to the deep form characteristic of the Graeco-Phoenician kylikes: compare the fully-developed form of No. 11. The ornament, like that of Nos. 10 and 13, consists of plain bands on the lower part, alternately broad and narrow in groups, with two wavy lines on the upper half of the bowl.

Number 11. Here the transformation of the outline is complete. The mouldings of the stem are vigorously and sharply defined. The foot is more conical, and the bowl well distinguished from the

uppermost stage of the stem. The rim of the bowl is very slightly incurved, and the handles are rather shorter and more prominent than in the less advanced types. The ornament consists, as usual, of systems of broad and narrow bands on the lower part of the bowl and on the stem and foot, with two narrow bands round the rim; there is a single wavy line of very small amplitude—rather zig-zag than wavy—round the middle part of the bowl, and simple basketry ornaments on the handles. The workmanship of this example is of the highest quality known to the beginning of the Iron Age in Cyprus.

Number 9. The form of this example is intermediate between Nos. 12 and 13. The foot is broken, and the edge of the bowl damaged. The ornament consists of the usual bands on the lower part of the bowl, with a row of latticed triangles with double outline resting on the uppermost band, and reaching the rim of the cup with their apices. This ornament is common, and characteristic, on the shoulders of oenochoe and amphorae of this period, but is not very often found on the kylikes. [*For Nos. 14, 15, see pp. 109-10.*]

Number 16 (two views, *a* and *b*). This vase is of similar form to the preceding. It has a rather small conical foot on a clumsy baluster stem, and an unusually shallow bowl, the clumsy outline of which is accentuated by the caprice of the artist, who has modelled the rim hollow so as to form a secret channel from the inside of the bowl to the spout, which is in the form of a bull's head rising above the rim on one side, midway between the two handles. The entrance to this secret channel is in the bottom of the bowl, and communicates with the hollow rim through the modelled body of a frog, which is represented as if swimming in the bowl, with its head downwards towards the middle of the bottom, and its hind legs and short tail touching the rim. The body of the frog is painted with outlines and dotted ornament in the dull black paint, and the bull's head has similar touches of black. There is a black band around the outer side of the rim, the upper surface of which is decorated with intermittent binding patterns like those which have been noticed already on the handles of No. 11, and are repeated on the handles here. The stem and the lower part of the bowl exhibit the usual systems of broad and narrow bands.

The intention of this curious vase is to provide a surprise for the

drinker, and perhaps also to permit a small quantity of liquid to be drawn off by suction through the secret channel by means of the bull's-head spout. Similar trick-vases are already known from Cyprus; they belong for the most part to the earlier half of the Graeco-Phoenician Iron Age, and display an acquaintance with the elements of hydrostatics which may perhaps be an inheritance from the great age of Minoan engineering.

Number 17. A large oenochoe, or jug, of a simple and characteristic early Graeco-Phoenician form. The body has very nearly the same ovoid profile as the common Mycenaean *Bügelkanne* and oenochoe of the Third Late Minoan Period, with a low but very distinct foot below, and a rather wide neck, of concave outline, with slightly thickened rim and slightly pinched lip; a single handle rises slightly from the rim, and descends to the middle of the shoulder. On the lower part of the body, and also at the base of the shoulder, runs a system of two broad black bands, with the interval between them filled with a series of four very narrow ones. This motive is recognisable at once as a direct inheritance from the ordinary vase-ornament of the Third Late Minoan Period. The neck has a single broad black band at its base, with traces of a narrow band on the rim, and triple wavy-line half way up the neck. Such oenochoe are fairly common in the first phase of the Graeco-Phoenician Iron Age, and are characteristic of it. At a slightly later phase, the wavy line, which is here as free and flexible as on the kylikes Nos. 12 and 13, tends to become more and more angular, like that of No. 11. Side by side with this change, latticed triangles like those of No. 9 usually appear on the shoulder. Their absence here is further indication of early date. [For No. 18 see p. 110.]

Number 19. A fantastic vase with annular body of roughly four-square profile, from which rises a horned head forming a pointed spout which projects outwards beyond the ring-shaped body: compare the rim and bull's head spout of No. 16. The clay is rather coarse, and there are left only traces of its painted decoration, which seems to have been of the usual simple geometric type. Such annular vases with fantastic animal-heads and other ornaments upon them are fairly common in Cyprus from the middle of the Bronze Age to the early middle of the Graeco-Phoenician

Age. They are commonest, and most characteristic, in the earlier stages of the Graeco-Phoenician Age.

Number 20. A support for a bowl or other vase, nearly cylindrical, modelled in imitation of a tripod. It should be noted, however, that the principal supports in this instance are four, not three, in number, and that between each pair of them there arises a similar but slenderer support, making eight legs in all. This preference for four-fold over three-fold symmetry may be noted as an early feature, for the Mycenaean Age in Cyprus prefers four-sided and four-footed supports to tripods.

This example consists of a deep collar with narrow, out-turned rim above, and a smaller but broader moulding below. From the under-side of the latter the eight legs run down, diverging a little as they descend, until they are united at their feet in a continuous ring of clay, which secures them all against accidental damage. This complicated lower part has been constructed by first turning on the wheel the whole cone, and then cutting out the quadrangular inter-spaces from the moist clay with a knife. The marks of the knife are still clearly visible round the edges of these openings; their upper margins have a sinuous outline intended to suggest the presence of a fringe of pendent ornaments between them.

The painted decoration is characteristic of the Early Iron Age. The cylindrical upper part bears a system of two broad and three narrow bands, like that on the shoulder of the oenochoe No. 17. The lower rim of the upper part has an intermittent binding ornament like that on the rim of No. 16, only the interspaces are filled with crossed diagonals like those which are so frequently painted on the handles of Cypriote oenochoes of the early Iron Age and Graeco-Phoenician Age. The lower part, above and below the eight legs, has a system of narrow bands: the four broader legs are painted with a string of framed and latticed lozenges such as are common on the large amphorae and on the flat plates of this period: on the narrower legs is a well-known Late Mycenaean and Early Graeco-Phoenician ornament of triangles, alternately filled with diagonal lines to right and left.

Number 21 (two views, *a* and *b*). A vertical-handled amphora (or 'krater' as it is commonly, though inaccurately, called in Cypriote archaeology), with a wide neck and rather shallow foot of

characteristic form. The outline of the foot and body resembles closely that of the wide-mouthed amphorae and oenochorae of the Late Mycenaean Age (compare for example the body of No. 17 above, though the latter has no foot), and the neck, though less finely designed, supports the same impression. Its profile is markedly concave, and the outward-turned rim is worked to a thin lip which projects almost horizontally. The handles, which are broad and flat in section, run out almost horizontally from the rim, and then return in a fairly graceful curve to meet the shoulder more than half-way from the greatest diameter of the vase to the base of the neck: cf. *C.M.C.* 1115 (Pl. V). In this they resemble the Mycenaean, and contrast with the Graeco-Phoenician type, *C.M.C.* 1108 (Pl. V), in which the handles descend vertically, and join the body of the vase at a tangent at, or only just above, its greatest diameter. Each handle is decorated on its outer surface with a pair of sinuous snakes, modelled in separate rolls of clay, and applied to the handle before it was baked. Their tails die away into the clay of the handle at the point where it joins the shoulder of the vase; their bodies alternately touch and diverge; and their heads face each other above the level of the rim. These snake-handles are fairly common on jugs of the earliest Iron Age, such as those from the tombs at Kouklia near Paphos (*C.M.C.* 1041, 1042 (Pl. IV), and references there); they occur also rarely in Greece and the Greek islands on vases of the Early Iron Age.

The painted ornament of this amphora is of the simplest—two plain bands of moderate breadth half-way up the body from the foot to the greatest diameter, and a single one at the base of the neck, and traces of another under the rim on the shoulder. On the shoulder (though very ill-seen in the photograph) are three broad panels about as broad as they are high, defined laterally by a system of three narrow vertical lines on each side, and filled with pairs of crossed diagonals between which the lateral quadrants are filled with solid black, so that the panel presents the appearance of a black hour-glass lying on its side. This pattern is not infrequent on vases of the earliest Graeco-Phoenician style. It belongs obviously to the same series of simple basket-like geometrical designs as the binding-ornament round the middle member of No. 20. On each side of the neck are three vertical bands of

lozenge pattern, also very ill-preserved, and almost invisible in the photograph.

General Considerations as to the Date of the Group.

There can be no doubt as to the approximate position of this group of objects in the history of Cypriote art and industry. The forms and painted decoration of the vases mark them all as belonging to the very earliest period of the Early Iron Age of Cyprus. By this time the secret of the finer clay-working had been lost by the descendants of the Mycenaean colonists; but the characteristic forms of the kylix, oenochoe, and amphora, were still being repeated, with only gradual variation from the original types; and the curvilinear ornament of wavy lines derived in all probability from the Mycenaean spiral motive had not yet become degenerated into mere zig-zags, and was only gradually being superseded by geometrical patterns based upon the triangle, the lozenge, and the zone of rectangular panels.

Only the rudely-fashioned flask No. 8 suggests any earlier date, but this is in itself so rude, and in any case is so evidently of late and degenerate form, that it proves nothing in face of the consensus of the other vases.

The date indicated by the fabrics and ornaments of the pottery is supported in general by the other objects in the group. The spear-head No. 18, though not of very characteristic or very common form, clearly belongs to a very late period of the Bronze Age, and is, in fact, more commonly represented in iron. The two bronze bowls are of types which are imitated in the common pottery of a slightly later date than that indicated by the vases, with which these bronze bowls themselves may consequently be about contemporary. The small double-conical bead or whorl, No. 6, is quite characteristic of the latest Mycenaean phase of the Bronze Age, and goes on into the earliest tombs of the Iron Age. The fibula No. 5 alone points to a slightly later date, for in the Early Iron Age tombs at Kouklia, close to Paphos in the west of the island, pottery of the types represented here is found associated with small fibulae of the highly stilted type (Type i of the classification proposed in the *Cyprus Museum Catalogue*): this is



CONTENTS OF AN EARLY TOMB FROM KITION IN CYPRUS.
NOW IN THE MUSEUM OF LEIPZIG.

From photographs kindly supplied by the Director of the Museum.

commonly supposed to precede this peculiarly Cypriote form, which is there classed as Type iii. On the other hand, at Amathus, this Cypriote type occurs in the same tomb-groups with bronze fibulae of the stilted forms (Types i and ii), and though these tomb-groups at Amathus contained a very large equipment, and in some cases the remains of several or even many persons, and consequently must be regarded as representing family tombs, the general uniformity of style in the pottery which they contained leads us to believe that the period of time which their interment covered was not a very long one. There is, moreover, no need to believe that the stilted fibulae of Type i did not co-exist in Cyprus with fibulae of Type iii. Type i begins earlier, it is true; and pottery, such as is represented in this tomb-group, is found in the tombs at Kouklia together with Type i; but Type i was apparently not yet extinct when Type iii was introduced; so that the interval of date is in any case no great one.

To translate these archaeological periods, even approximately, into centuries is not yet easy. On the one side, Mycenaean civilisation, though decadent already, was prevalent still in the Levant in the days of Rameses III of the Twentieth Egyptian Dynasty, about 1200 B.C. On the other, the Assyrian Protectorate over Cyprus, our first precise date in the period of Oriental influence, or Graeco-Phoenician Age, was declared in 709 B.C. We have, therefore, an interval of about five centuries to apportion. Into these centuries we have to fit (1) at the upper end, the Mycenaean decadence; (3) at the lower, the dawn of Oriental influence; and (2) in the midst of all, the long obscure phases of the Early Iron Age. If we assign arbitrarily equal periods of time to each of these three main chapters of art and history, the Early Iron Age would range from a little before 1000 B.C. to about 850 B.C.; and this tomb would date from about 1050 B.C. But we must remember the general probability that decadence is long, and that new influences in art and industry spread rapidly when once the path is clear. We must therefore be prepared to find that the Iron Age began later, and lasted longer, than our arbitrary scheme suggests; and we may probably regard our tomb-group, with its *sigynna* spears, as representing fairly well the equipment of a Cypriote of about 1000 B.C., or perhaps a few years later.

THE EARLY SETTLEMENTS AT COPPA NEVIGATA AND THE PREHISTORY OF THE ADRIATIC

By T. E. PEET

WITH PLATE XXX

The Bronze Age in South Italy.

The discovery of the *terramara* at Taranto* and of the cremation cemetery of Timmari† may be said to have opened a fresh era in the study of pre-history in South Italy. It proved that at the end of the Bronze Age a colony of the pile-dwellers of North Italy had been founded in the extreme south. However, this colony remained isolated and there seemed to be no line of communications between it and the mother-settlements in the Po valley.‡ Thus, when, in 1904, it was noised abroad that a settlement of *terramara* type had been discovered at Coppa Nevigata, near Manfredonia,§ it seemed as though some fresh light was about to be thrown on the curious phenomena of the isolated settlements at Taranto and Timmari.

The details to hand with regard to the nature of the settlement were few. It was, however, certain that the material found shewed close analogies with that of Taranto and that it included fragments of Mycenaean pottery.

It was this last fact that induced Senatore Angelo Mosso to excavate there. The results of the excavation have now been published.|| It must be confessed that the report is disappointing. In the first place, we are told that Quagliati carried out an excavation on the site in 1904, and returned there in 1905. But with regard to the results of these excavations we are given no information whatsoever. In the second place, although Mosso seems to have carefully observed the stratification of the site, the divisions are so

* *Notizie degli Scavi*, 1900, pp. 411 ff.

† *Monumenti Antichi*, XVI. pp. 6 ff.

‡ The so-called *terramara* at Offida cannot be used as a link. In the first place it is not a *terramara* at all, and in the second it has never been scientifically excavated. See Allevi, *Offida Preistorica*, and *Bullettino di Paletnologia Italiana*, V. p. 73.

§ Newspaper *L'Oggi*, Bari, May 3rd, 1905.

|| *Monumenti Antichi*, Vol. XIX, pp. 306 ff.

obscured in the text that it is often difficult to know with which stratum one is dealing. This is, however, mainly a fault of arrangement. Finally Mosso seems to be unable to look at any Italian site except through Cretan glasses, and his vision is thus seriously distorted; while an equally serious defect is his desire to connect all objects whose use is uncertain with cult or religion.

Despite these faults, however, we may be grateful to the author of this report, for it has raised far-reaching problems, even if it has not solved them; and the discovery of an iron foundry in a settlement which has the appearance of belonging to the Third Late Minoan period, is, if correct, a fact of supreme importance for Mediterranean pre-history.

The date of this foundry, however, is open to discussion, as we shall presently see. For the moment we must stop to give some general account of the site.

Coppa Navigata.

The hill of Coppa Navigata lies close to Manfredonia, a town on the Adriatic coast of Italy, in the wide bay that lies to the south of the great promontory of the Gargano. It is less than 10 metres high, and its area is about 100 by 60 metres. It is elliptical in form and slopes gently down to a marsh. The sea is only 5 kilometres distant. The hill is in part natural, but it is covered with an artificial deposit of about 3·60 m. in depth.

The Lowest Stratum.

The lowest stratum of this, 30 cm. only in thickness, is clearly to be referred to the neolithic period. The pottery found in it* is absolutely identical with that found in the neolithic strata at Molfetta,† Matera,‡ Terlizzi,§ and in the Tremiti islands.|| The ornament covers the whole vase and has no definite arrangement. It is produced while the clay is still wet and consists of nail marks, short strokes straight or curved, and *tremoli* or wavy lines.

* *Mon. Ant.* XIX, Tav. ix. figs. 59, a-o.

† MAYER. *Stazioni preistoriche di Molfetta*, pp. 44-61.

‡ *Liverpool Annals of Archaeology and Anthropology*, II, p. 82. Type (a).

§ *Notizie degli Scavi*, 1910, pp. 33 ff.

|| *Bullettino di Paletnologia Italiana*, XXXIII, pp. 1 ff. and 188 ff.

The Middle Stratum.

Above the neolithic stratum lies that belonging to the ages of copper and bronze. This is 2·15 m. in thickness. The pottery of this stratum varies much in type. Some has an unpolished grey surface, but the better vases have a well-polished slip of red or black colour. Among vases of the latter type there are many which are, chronologically, of great importance. The crescent or horned handle (fig 1)



FIG. 2. 'CRESTED' HANDLE.

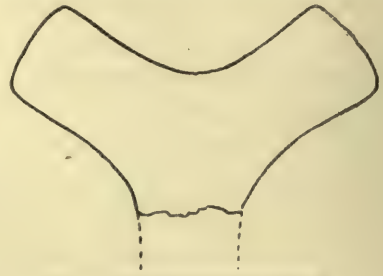


FIG. 1. 'CRESCENT' HANDLE.



FIG. 3. 'BEAK-SHAPED' HANDLE.

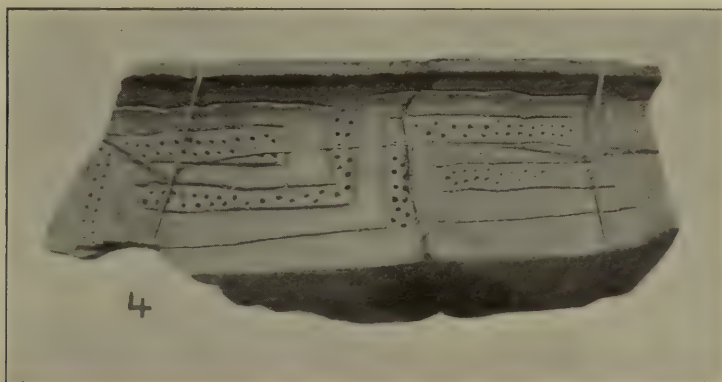


FIG. 4. 'BIFORATE' HANDLE.

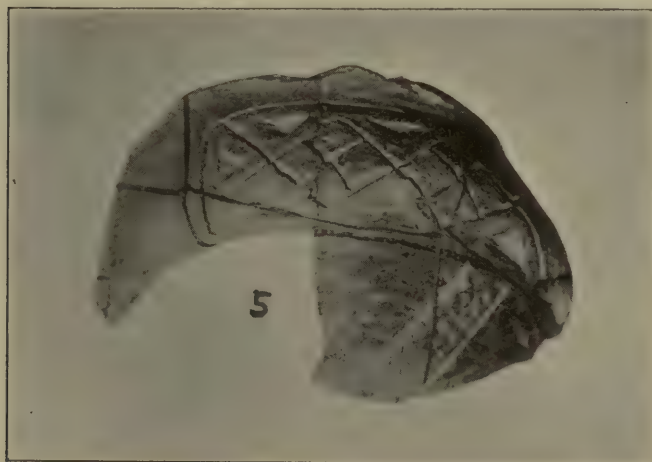
is common, indeed it is practically the only decorative form of handle which occurs. Now the crescent handle (*ansa cornuta*, *ansa lunata*) is characteristic of the *terremare* of North Italy, and is rare in settlements of other types, except in those near to and under the influence of the *terremare*. In this respect, and perhaps in a few



1, 2, 3. VASES WITH 'TONGUE-HANDLE' (*ansa a nastro*): COPPA NEVIGATA.



4. VASE WITH 'INCISED AND PUNCTURED' ORNAMENT: COPPA NEVIGATA.



5. VASE WITH 'INCISED AND PUNCTURED' ORNAMENT: COPPA NEVIGATA.

others, the pottery of Coppa Nevigata resembles that of the northern *terremare*, but I doubt whether the resemblance is even as close as in the case of the *terramara* at Taranto.

Among the vases of this middle stratum are many that are decorated with 'incised and punctured' ornament, of a type well known in South Italy and incorrectly called Siculan. The designs consist of triangles, squares, rhomboids, spirals and maeanders (Plate XXX, 4, 5). This ware is already well known* in South Italy, in the Vibrata valley, at Matera, in the Grotta di Pertosa, in the *terramara* of Taranto and elsewhere, and can be safely attributed to the bronze age. It is, therefore, no surprise to find it at Coppa Nevigata in a deposit of this date. With it occurs as usual the tongue handle (*ansa a nastro*) with which it is nearly always associated (Plate XXX, 1, 2, 3).

The Upper Stratum.

To the upper stratum, Mosso attributes a thickness of 1.15 m. The vases found here are of two types. The first type is no doubt local. It includes a few large vases found on the floor of a hut and a number of small cups with curiously developed handles, including the crested (fig. 2), the beak-shaped (fig. 3), the biforate (fig. 4), and the cylindro-vertical (*ansa cilindro-retta*). The other type of ware is promiscuously referred to as Mycenaean. To this we shall return.

Stratification.

Passing now to consider the type of the settlement, we find the report somewhat chaotic. As to the composition of the neolithic stratum, nothing seems to have been ascertained. The middle and upper strata contained the remains of huts, but nothing whatever was discovered to give support to the idea that there was ever a *terramara* on the site. The most instructive example of stratification given is from Trench F, where four layers of yellow clay were found at 1.05 m., 1.90 m., 2.70 m., 3.20 m., respectively, separated by strata of charcoal and cinders. These latter represent the remains of huts, and the clay deposits may be the result of a re-laying of the surface of the site in periods of re-construction. One would have thought

* For figures see *Stone and Bronze Ages in Italy*, p. 403.

that these dividing strata of clay must have given an ideal opportunity for a minute stratification of pottery from the successive settlements, but to such there is no reference. Other trenches apparently gave rather different results. Certain open spaces and the paths between the huts are said to have been paved with flat stones, but the account of these is very muddled.

Problems of the Upper Stratum. The Iron Foundry.

Whether any of these layers above described belong to the upper stratum is not made clear, but of one hut at 65 cm. from the surface a full account is given us. The shape of the hut was indeterminable. On a floor of yellow clay stood the remains of three large vases. At the side were two seats of hard smooth clay, one with a single slight depression and the other with two parallel depressions. These Mosso takes as suited for the use of a woman and a man respectively, and in a naïve flight of imagination he sees in the combination 'a piece of evidence which proves monogamy among the people of Coppa Nevigata.'

The real importance of this hut, however, is that on the inner surface of one of the vases was found a stain of oxide of iron. Thus we appear to have, in a stratum containing Mycenaean pottery, a hut the inhabitants of which were acquainted with iron. Fortunately the phenomenon is not isolated. 'In the midst of the fragments of Mycenaean vases, at a depth of half a metre from the surface' were found some pieces of iron slag. Near to these were some fragments of curved earthenware tiles which 'from their appearance are seen to have been subjected to the action of a very high temperature.' Another piece of thick pottery Mosso thinks was used to cover the top of the furnace, and on casting about for other objects connected with the iron industry he has no difficulty in finding anvils and hammers of flint.

Whether the excavator's imagination has carried him away here, we need not discuss. The indissoluble residue of fact is that the remains of an iron foundry exist in the upper stratum of the site. Coupling this with the finding of Mycenaean fragments, Mosso attempts to push back the beginnings of the knowledge of iron in Italy into the Mycenaean period. It would thus, he says, have appeared earlier in Italy than in Crete, for in the latter the first

time an iron sword appears it is combined with geometric pottery. And since iron does not appear in Greece till the end of the Mycenaean period, and then only for ornaments, he implies that iron was worked in Italy earlier than in Greece.

Iron in Italy and Crete.

Mosso's argument for the priority of iron in Italy rests in the first place on a misunderstanding. He says, 'We ought to remember that the Mycenaean vases of Coppa Nevigata, although they have the characteristics of the most advanced style, are yet far enough from the geometric style, characteristic of the iron age in Greece. This is an argument for establishing the priority of metallurgy in Italy, since in Crete, the first time an iron sword appears, there is found with it an urn decorated in the geometric style and containing cremated bones.'

Now the urn at Moulianà,* to which Mosso refers, is in the first place not decorated in the geometric style at all.† It is a crater of the same type as the warrior vase from Mycenae, and shewing similar representations of the human figure. It may be placed with a class of vases which has been found in East Crete, and to which the name Late Minoan III b. has been given.‡ This class is distinctly later than Late Minoan III a, as seen in the cemetery of Zafer Papoura, but it has no connection with the still later geometric ware of which the Dipylon has given the best known examples.

Date of the Iron Foundry.

Thus, if Mosso can connect his iron foundry with pottery of Late Minoan IIIa type, there is still reason for maintaining the priority of iron in Italy. But the evidence for this is very slender. Altogether he found only eight pieces of 'Mycenaean' ware at various depths, from 50 cm. to 1.15 m. The iron slag was found at a depth of 60 cm. Again in one part of the site was found the hut already referred to, with a floor at 65 cm., on which stood a vase with a stain of oxide of iron on its wall. At various depths (not specified) in this stratum, were found red patches marking the oxidised remains of objects of iron.

It is true that some of the 'Mycenaean' sherds are of degraded Late Minoan IIIa type (fig. 5, *a, b, c, d*). But there are at least

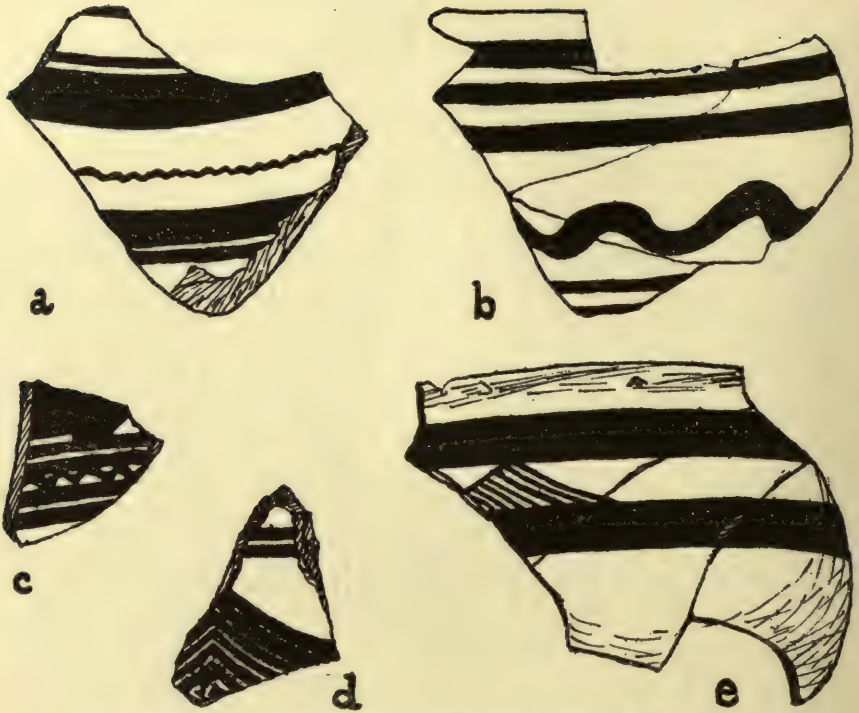


FIG. 5. a, b, c, d, 'MYCENAEAN' POTTERY FROM COPPA NEVIGATA;
e, 'GEOMETRIC' FRAGMENT FROM THE SAME SITE.

three among those found in 1904, and figured by Mosso, that are not Mycenaean or Minoan at all. Two of these are of rather rougher clay than the Mycenaean fragments and have designs in brown matt paint on a rather flakey ochre slip; they bear no signs of being wheel-made. The designs (fig. 5, e) are not Mycenaean, and the form of the vase whose shape is still determinable, is a large, coarse, open basin (*scodella*)§ which is thoroughly un-Mycenaean. The third fragment, in red on a pinky-yellow slip, has no similarity to Mycenaean wares.||

It is impossible to say to what class of known wares these belong. They may fall into the period between L.M. IIIa and Dipylon, or

* 'Εφημερίς 'Αρχαιολογική, 1904, pp. 21-50.

† See Duncan Mackenzie in *Annual of the British School at Athens*, XIII, p. 430.

‡ *Annual B.S.A.*, VIII, pp. 289, 303; IX, pp. 317-320.

§ *Mon. Ant.*, XIX. Tav. iv, 8.

|| *Mon. Ant.*, XIX. Tav. iv, 9.

they may be, and probably are, later—perhaps parallel with the true geometrical ware in Crete. In any case the top stratum at Coppa Nevigata cannot be *as a whole* assigned to the L.M. IIIa period.

A remarkable parallel occurs in the mixture of L.M. III and Laconian geometric sherds in the uppermost stratum at Taranto. This seems to imply that the evidence of the top stratum may be very inexact and unreliable, and I cannot see why the iron-slag, and even the hut (at 60 cm.), may not belong just as well to the time of the latest sherd, as to that of the earliest, or even be later than either. It is unfortunate that Mosso did not examine the earth below the floor of the hut: this would have been a criterion of the utmost value.

Moreover, when iron is a new discovery, it is precious, and only the smallest objects are made from it. The presence of an iron sword at Mouliaà is probably a sign of a fairly advanced period in the history of the metal.* We need only point to the fact that with the sword were found arched-bow fibulae of bronze, whereas, in Italy, this same fibula is typical of the transition stage between the age of bronze and that of iron, where, far from being used for swords, iron is not even in use at all.

For these reasons, therefore, Mosso does not seem to me to have proved either that the iron foundry at Coppa Nevigata is Mycenaean (i.e., L.M. II or IIIa) in date, or that iron appeared earlier here than in Crete. The same argument applies to the Greek mainland. For at Mycenae, in the latest tombs of the lower town, ornaments of iron are already in use, along with the violin-bow fibula, while in Italy the arched-bow fibula, which is later than the violin-bow, appears long before the first objects of iron.

Problems of the Middle Stratum.

We must now return to the middle stratum at Coppa Nevigata, attributed by Mosso to the bronze age. Here, too, problems await us. In the first place we have to ask whether the bronze-age inhabitants of Coppa Nevigata were colonists from the *terramara* district of North Italy. And here the greatest caution is necessary. It is true that the crescent handle (fig. 1) is common here, that black

* At the same time it is probable that the iron age made a rather sudden appearance in Crete, and in any case we hardly know the length of L.M. III, b. Iron is of course unknown at Zafra Papoura, which belongs to L.M. III a.

polished pottery of a type common in the *terremare* occurs and that all the bronzes found might well have come from a *terramara*. It is also true that the inhabitants, as evidenced by certain heaps of carbonised grain found, were agricultural, as were the folk of the *terremare*. But, taken as a whole, the pottery is not that of the Emilian *terremare*, and, moreover, there is no sign of a pile-dwelling.

It may be objected that the pottery at Taranto is not truly of *terramara* type, and that, therefore, Taranto is not a *terramara* colony. But there the *terramara* itself actually exists, while at Coppa Nevigata it does not. At the same time, if we suppose that Taranto is a *terramara* colony, it is not altogether impossible to believe that Coppa Nevigata also is. And in this case we should have at least one link in the chain of *terramara* settlements which might be expected to mark the route of the colonists from Emilia to Taranto. As for the pottery, which is mainly of the South Italian type, we should have to explain it by supposing that the *terramara*-folk fell strongly under the influence of the South Italian people in the midst of whom they founded their colony. That this explanation is entirely satisfactory I do not venture to suggest, and it may be said that the excavation of Coppa Nevigata has complicated rather than simplified the question of the *terremare* colonies in South Italy.

The 'white-incised' Pottery.

It is in this middle stratum that the incised pottery of so-called 'Siculan' type was found. This Mosso compares with the early wares of Butmir in Bosnia, a comparison which is by no means novel.* The paragraph in which he deals with this point is not in his clearest style. But it is at least certain that he would derive both the Bosnian and Italian wares from Aegean originals. 'With regard to the influence of the Aegean on the neolithic art of Butmir,' he says, 'all are now agreed.' Had Mosso followed the trend of modern researches in the Balkans, he would hardly have made so false a statement as this. He proceeds:—

'The fragments of black polished ware are so abundant in the station of Coppa Nevigata that this was certainly the work of

* Cf. Colini in *Bull. Pal. It.*, XXIX, p. 97. Patroni was, I believe, the first to make the comparison.

native potters, and we cannot now decide which of the vases are foreign and served as models. Nor do we know from what part of the Aegean came the fine black pottery with deeply incised maeanders filled with a white substance.'

He assumes, in fact, that both the South Italian and the Bosnian wares were derived from a common Aegean origin. And this, he says, is the result of 'the studies which we made in the neolithic stratum of Crete.'*

Now the most characteristic ornaments of the Bosnian and South Italian pottery are the maeander and the spiral, both of which are conspicuously absent both in neolithic Crete and in the contemporary strata of the Aegean.† Hence it is on present evidence the merest folly to try to derive the Bosnian and Italian designs from the Cretan incised ware, for we are left with no similarity except the technique of white-filled incision. It is hardly necessary nowadays to insist on the feebleness of this criterion of derivation. White-filled-incised ware is so common at so many different periods in the Mediterranean that it can prove nothing.

So much for the negative evidence. There is also positive evidence against the Aegean derivation. In neolithic times there seems to have been a very important civilisation which covered the Danube valley, and probably had offshoots in the Balkan Peninsula. Though there have been attempts made, notably by Wosinsky,‡ to explain this great culture as derived from the Aegean, they cannot be said to have been successful. Indeed, the recent discoveries in Thessaly, Thrace and North Greece seem to show that Aegean influence was not present in the Balkans until a period corresponding to Late Minoan III. It might still be maintained that Aegean influence reached the Danube valley by way of the Adriatic or the Black Sea. But here we are confronted with the same difficulty. The Minoan imports in

* I take this opportunity of pointing out that Kephala is the name of the rise on which Knossos stands. Thus the neolithic sherds from Kephala, to which Mosso so frequently alludes in his publications as being more advanced in type than those of Knossos, are simply sherds from the neolithic strata of Knossos!

† The evidence for the existence of the maeander at Knossos is based on a fragment of a pattern which was more probably not a meander at all. See *J.H.S.*, XXIII, Pl. IV, 30.

‡ *Die inkrustierte Keramik der Stein- und Bronzezeit.* Berlin, 1904.

Sicily, Italy and the Adriatic generally are all of L.M. III. date, and the same is true of those found on the northern coasts of the Aegean and Asia Minor. In fact, the trade connections of Crete in the earlier periods were rather with Egypt than with the North. This being the case, it is surely contrary to reason to try to derive the Bosnian pottery from Aegean originals as Mosso does.

At the same time this derivation has been partly upheld by Vassits in a very important paper lately published.* Discussing the appearance of the spiral and maeander in the latest moments of the *bothros* stratum at Vinča and in the stratum above it, he points out that at Troy the spiral only appears in the third period (*i.e.*, in the II-V City deposits), in Thessaly in the later neolithic period, and at Knossos in Middle Minoan I. From these chronological parallels he concludes that the spirals of all four districts had a common origin, which for him is the Aegean. I find myself unable to see the force of this argument. We cannot argue that because the spiral appears in four places at about the same date, all four received it from a common source. In any case Tsountas is probably right in looking north rather than south for the connections of the Thessalian spiral pottery.† Had the spiral come up to Thessaly from the Aegean it is almost impossible that the knowledge of bronze should not have come with it. And yet it did not, for we know that North Greece and Thessaly continued in the neolithic age almost until the period of Late Minoan II.‡

The fact is that, in speaking of derivations, there is a distinction which must always be made. It is one thing to say that the Butmir pottery is derived from the Aegean, and another thing to say that both point to a single though distant origin. Thus the study of Mediterranean archaeology is by some considered to show that the whole neolithic population of Europe and the Mediterranean consisted of various branches of a dolichocephalic race moving northward from Africa into Europe.§ Such a supposition would explain the wide diffusion of various remarkable rites in connection

* *Annual of the British School at Athens*, XIV, pp. 319 ff.

† Αἱ προϊστορικαὶ ἀκροπόλεις Διμηνίου καὶ Σέσκλου, pp. 398 ff.

‡ *Liverpool Annals of Archaeology and Anthropology*, I, pp. 127, 133.

§ Mackenzie in *Annual of the British School at Athens*, XII, pp. 230 ff. and Sergi, *The Mediterranean Race*.

with the burial of the dead, notably inhumation in the contracted posture, and possibly the occurrence over almost the whole area in question of 'white-incised' pottery. That is to say, the process may have been known to this race before it broke up into divisions in its invasion of Europe. But this is a very different thing from believing that any one group of known 'white-incised' wares is directly derived from any other, especially when they have so little in common as those of Crete and Bosnia. On the other hand, there is no inherent improbability in holding that the Bosnian and Italian wares are very closely connected, for (1) there is a *close* similarity between them; (2) they are found in districts separated only by a narrow sea—no impediment to intercourse, even in neolithic times—; and (3) the view involves no chronological impossibility, as far as we know at present.

Pre-history of the Adriatic.

History has proved again and again that, of all geographical impediments to intercourse, the sea is the least effective. The Mediterranean itself is an excellent example of this on a wide scale, and the Aegean on a smaller. Not only did exchange of produce take place over wide tracts of sea in quite early times, but actual movements of races took the same route.

Hence, when we have to deal with a sea, and that a narrow one, we may take it almost as a foregone conclusion that the civilisation on opposite shores of that sea will have many elements in common. Nowhere are the required conditions better fulfilled than in the Adriatic, which is a huge land-locked gulf; and what I wish to insist on here is, that any attempt to explain the prehistoric phenomena of the Italian coast of this sea without any reference to its Balkan coast is almost certain to go astray. The comparison is, moreover, all the more necessary in view of the fact that the Adriatic coast of Italy is completely cut off from the rest of the country by the barrier of the Apennines. Thus, in accordance with the geographical law above mentioned, it is just as necessary in dealing with this coast to look across the Adriatic as across the Apennines. I therefore propose to sum up very briefly what we know of this Balkan coast, in order to see whether it throws any

light on the perplexed problems which we have found existing on the Italian side.

Unfortunately, of the coast which lies exactly opposite Italy we know little archaeologically.* The researches of Soteriades,† Wace,‡ Tsountas,§ and others have brought to light a series of very similar neolithic civilisations in Thessaly and North Greece. But according to present evidence this culture did not extend across to the west of the Balkans.

Bosnia and Servia.

In Bosnia and Servia, however, much decisive work has been done. In Bosnia we have a late neolithic culture represented by the finds at Butmir, to which reference has already been made. The bronze age is represented by finds at the Gradina of Prozor,|| at Tešanj,¶ at Drenovi dō,** at Sobunar,†† at Cungar,‡‡ and at Debelo Brdo,§§ the last of which sites covers the whole period from the late stone age to the iron age. In most of these sites we find examples of the strange handles |||| which have been puzzling us at Taranto, Coppa Nevigata, and elsewhere on the Adriatic coast of Italy. In fact, in Bosnia and on the Italian coast we have in the bronze age precisely the same passion for developing the handles at the top into biforate, crested, beaked and similar forms.

At the end of the bronze age we have the important pile-dwellings of Ripač¶¶ and Donja Dolina,*** where the *ansa cornuta*

* See, however, Mr. A. M. Woodward's paper in these *Annals*, Vol. II, pp. 27 ff.

† *Athenische Mitteilungen*, 1905, pp. 120 ff.; 1906, pp. 396 ff. 'Εφημερίς 'Αρχαιολογική, 1908, pp. 68 ff.

‡ *Annals*, I, pp. 118-134; II, 149-164; *Annual of the B.S.A.*, XIV, pp. 197 ff.

§ *Αἱ προϊστορικαὶ ἀκροπόλεις Διμηνίου καὶ Σέσκλου*, VIII, pp. 49 ff.

|| *Mitteilungen aus Bosnien und der Hercegowina*, VIII, pp. 49 ff.

¶ *Op. cit.*, XI, p. 60.

** *Op. cit.*, XI, p. 56.

†† *Op. cit.*, I, pp. 39 ff.

‡‡ *Op. cit.*, IV, pp. 84 ff.

§§ *Op. cit.*, IV, pp. 38 ff.

||| *Op. cit.*, VIII, p. 55, fig. 22; V, Pl. XXVI and XXVII; IV, p. 40, figs. 2 and 3, p. 47, fig. 63, p. 84, figs. 62, 64-66.

¶¶ *Op. cit.*, V, pp. 29 ff.

*** *Op. cit.*, IX, pp. 3 ff; XI, pp. 3 ff.

or crescent handle is common, and takes much the same forms as at Taranto and Coppa Nevigata.* And finally we come to the full iron age cemeteries of Jezerine and Glasinač.

In Serbia, too, a series of settlements has been found extending in date from Troy II to Troy VII,† and yielding in many cases pottery of the Bosnian type with incised spirals and maeanders. The most important of these sites is Vinča, which in itself covers practically the whole of this period.

Comparisons with Italy.

Thus we have on the Balkan side of the Adriatic three facts which are of importance for our present enquiry:—

(1) The use of white incised pottery with spirals and maeanders in the bronze age.

(2) The occurrence, in this same period, of biforate, beaked and crested handles.

(3) The existence, in the late bronze age and early iron age, of pile-dwellings in which the crescent handle was common.

It can hardly be regarded as a coincidence that both the white-incised ware and the handles of biforate, beaked, and crested forms occur along the Adriatic coast of Italy and are in some cases peculiar to that part. White-incised ware with spirals and maeanders ranges from Taranto in the south to Toscanella Imolese and to Jesi (specimens at Ancona) near Pesaro. In South Italy it crosses the Apennines and reaches the Campanian coast, but in North Italy it is as yet unknown west of the Apennines.

Beaked and crested handles occur as far north as Toscanella Imolese and Marendole‡ in Venetia. The biforate form is present at Marendole. The two first do not occur west of the Apennines. The latter is common in Latium and Tuscany, but not before the iron age. Finally the beaked handle occurs in the early bronze age *castellieri* of Istria.

We may surely infer from this evidence that these types of handle are Adriatic rather than merely Italian, and their occurrence on both coasts of the sea must mean either that the

* *Op. cit.*, IX, Pl. XXV, XXVII, XLVII, LIX.

† *Annual of the British School at Athens*, XIV, pp. 319 ff.

‡ *Bull. Pal. It.*, XXIII, pp. 66 ff.

inhabitants of both sides were of the same race,* or that there was lively trade between them.

The occurrence of the spiral-maeander pottery on both sides points to similar conclusions. Needless to say, this must be kept quite distinct from the neolithic ware of South Italy (Molfetta, Matera, Stentinello, &c.) with which it has no connection whatever.†

With regard to the crescent handle the case is not so clear. It is probable that this reached Bosnia in the same way in which it reached the Italian *terremare*, viz., from the north. Thus we need not seek, except as a last resort, to connect Taranto and Coppa Nevigata with Bosnia, for it is simpler and more natural to connect them with the *terremare* of the Po Valley. At the same time I cannot help saying that after personally examining all the material concerned, I find no more difference between Coppa Nevigata and Bosnia than between Coppa Nevigata and the North Italian *terremare*. A possible explanation of this is that Coppa Nevigata was a settlement not of *terremare* people but of the earlier inhabitants of the district under the influence of the *terremare* civilisation. The similarities with Bosnia are then explained as being a survival of those which, as we have seen, existed in earlier times. That this is entirely satisfactory I do not pretend. But it is, on the other hand, certain that those who explain Coppa Nevigata as a simple *terramara* colony from the Po Valley are shutting their eyes to a long series of difficulties. All who are really anxious to know the truth will still cry for more and better excavation on the site and a serious search for its burying-ground.

Mycenaean Trade in the Adriatic.

In conclusion, a word as to Mycenaean influence in the Adriatic, which I have dealt with elsewhere.‡ The certain facts are, of course, the Mycenaean tombs discovered by Kavvadias in the island of Cephallenia,§ and the vases at Taranto and Coppa

* This was suggested by Cordenons as early as 1897 (*B.P.I.*, XXIII, pp. 66 ff.) but the suggestion never seems to have been taken up.

† *Annual B.S.A.*, XIII, pp. 411 ff. *Annals*. II, p. 82, Type (a).

‡ *Stone and Bronze Ages in Italy*, pp. 511 ff. *Annual B.S.A.*, XIII, pp. 405 ff.

§ *Revue Archéologique*, XXXVII, p. 128. *American Journal of Archaeology*, 1910, pp. 108-9. *C. R. Acad. Insc.* 1909, pp. 382 ff.

Navigata. With these exceptions I do not know of a single piece of incontrovertible evidence. The vases at Torcello, near Venice, may not have been found in that locality at all, though it is hard to explain otherwise their presence in such a purely local museum. The vases from Oria,* figured by Furtwängler and Loeschke, are open to the same doubt. The so-called Mycenaean vase-fragments from the Pulo at Molfetta are not Mycenaean at all.† The Mycenaean gem quoted by Mosso as being in the Bari Museum‡ does not even claim to have been found in Italy. The violin-bow fibula and Naue's Type II sword, which were taken by Colini as evidence of Mycenaean influence in the Po Valley,§ are probably not Mycenaean types at all, and they may rather have come from the Balkans, perhaps across the Adriatic. The sword is common up the valleys of the Italian coast of the Adriatic, while across the Apennines it is rare. Finally, all attempts to class objects as Mycenaean because they are decorated with spirals are misguided, especially in the North Adriatic, where the spiral motive was known and flourished early. This rules out the Nesazio architectural fragments,|| the Novilara stelai,¶ and the Campeggine vase;** they are no evidence of Mycenaean influence.

We may thus sum up by saying that although the South Adriatic fell under Mycenaean influence in Late Minoan III times, we have as yet no certain indications that this influence extended to the northern parts of this sea, though later discoveries will no doubt prove this to have been the case.

* *Mykenische Vasen*, p. 48 and Taf. XXII, No. 164.

† *Annals* II, p. 84, note.

‡ *Le origini della civiltà mediterranea*, p. 201, fig. 136.

§ *Bull. Pal. It.* XXIX, pp. 71-73.

|| *Atti del Congresso Internazionale*, Roma, 1903, V, pp. 147-156.

¶ *Monumenti Antichi*, V, pp. 171-174.

** Mosso seems to use the word Mycenaean as a standing epithet of spirals. The design on this vase does not even consist of true spirals at all. For a figure of the vase see *Bull. Pal. It.* III, Tav. I, Fig. 3.

With regard to spirals in general we may add that it is quite possible that the spirals of Central Europe, of the Aegean, and of the megalithic monuments of West Europe (Malta, Ireland, etc.) have entirely independent origins. See the article on Aegean Influence in Malta, in *Papers of the British School of Rome*, Vol. V.

HERODOTUS AND THE EGYPTIAN LABYRINTH

By JOHN L. MYRES

WITH PLATE XXXI

This is an attempt to reconstruct a lost masterpiece of Egyptian architecture from the oldest and only detailed description of it which has come down to us (Herodotus, II, 148). Other accounts of the Labyrinth are to be found in Diodorus (I, 61), Strabo (811), and Pliny (xxxvi, 84); but though Strabo, and probably Diodorus, saw the building, like Herodotus, for themselves, these later descriptions are vague and inadequate: so vague, indeed, as to give the impression that the Labyrinth was already ruinous in their time; in any case it had been considerably enlarged, for Strabo enumerates twenty-seven 'courts,' where Herodotus only knows of twelve. When Herodotus saw it, however, in the middle of the fifth century B.C., the Labyrinth was still a necropolis of kings and crocodiles, with Egyptian officials in charge, and an upper suite of state-rooms 'open to the public.' Moreover, his account of his visit, brief and naïve as it is, gives us, I believe, if we study it closely, sufficient detail, and in sufficiently consecutive order, to permit us to recover the plan of the units of which it was composed, and to get some idea of the design of the whole..

I offer therefore, first, a close translation of the passage, and then some comments upon a few points in it, in the order in which they occur.

'Even the Pyramids were bigger than words can tell, and each of them equivalent to many Greek buildings, even big ones: but the Labyrinth surpasses even the Pyramids. For in it there are twelve courts with roofs,¹ door-to-door with each other,² six coming from the north, and six going to the south,³ one after another; and outside, one and the same wall encloses them.⁴

'Inside there are two sets of rooms,⁵ the one set underground, the others up aloft on top of them, three thousand in number, fifteen hundred in each set.⁶ The upper set of rooms we ourselves traversed and saw, and we tell what we saw ourselves. But of those

underground we had to try to find out by word of mouth, for the Egyptians in charge would not show them on any account, saying that there were coffins there, of the kings who originally built this labyrinth, and of the sacred crocodiles. So about the lower rooms we tell what we got by hearsay. The upper rooms, however, we saw for ourselves, and they are of superhuman size and workmanship. For the ways through and out of the cloisters, and the devious windings through the courts, which were most elaborate,⁷ caused endless wonder to us, as we went in-and-out⁸ from a court to its rooms, and from the rooms to corridors, and to other cloisters from the corridors, and to other courts from their rooms.

'Over all these there is a roof, of stone like the walls, and the walls are covered with figures cut into them;⁹ and each court has a colonnade of white stone, most exactly set together. And at the corner as the labyrinth ends¹⁰ is a pyramid forty fathoms [high], on which great figures of living things are cut, and a road made to it underground.'

The plural verb, which is not usual in Herodotus, suggests that the writer 'went in a party' with one of the professional guides; who were there still in Strabo's day, to prevent visitors from losing themselves. And the breathless scamper which he describes, in-and-out of courts and passages, by an involved but hackneyed route, is a touch of nature which all who know Egypt will appreciate.

Notes:—1. Courts with roofs. As ἀὐλή in early Greek means an open courtyard, this is a contradiction in terms; but at the same time it is no bad description of what we should call a 'cloister' and of what Herodotus himself calls a 'peristyle,' or court-with-a-colonnade, a little further on. It was this colonnade, presumably, which carried the 'roof' now in question; the centre of each court was open, as the Greek word implies. Even very large openings show but little if the expanse of flat roof which surrounds them is as wide as it must have been here; Strabo's description of the roof-view of the Labyrinth as 'a plain of stone' is therefore not inconsistent with this; it emphasizes the flatness and extent, not the continuity of it.

2. *Door to door with each other:* i.e. as the visitor stands in the doorway of the first court, he looks down a vista of alternate doorways and courts, with deep shadows and bright sunlights succeeding each other: the exit from one court is therefore also, in the long run (for there are rooms and corridors between) the entrance to the next.

3. *Six coming from the north, etc.* This looks at first sight as if all twelve courts were in one row, six to the right and six to the left of a visitor standing in the doorway between the sixth and seventh courts. But this is not necessarily so. The Greek idiom is used equally of series and of single objects, and would be applicable to two series of six courts each, lying to north and south, either of a visitor in a passage between them, or merely of a common party wall. Stein's idea that the courts *faced* north and south on to a central space (the two rows of six running therefore from east to west) rests partly on a limited interpretation of the phrase 'door-to-door' (applying it only to pairs of courts), partly on his assumption that there was a central space at all, which seems to me to be ruled out, not only by Herodotus' omission to describe it, but by his explicit

use of *συνεχέες*, which should mean that the 'Labyrinth' consisted wholly of these twelve cloister-courts.

4. *Outside, one and the same wall encloses them.* The particle *δὲ* here, like the *δὲ* of the succeeding sentence, marks the successive surprises which befall the visitor; the sense is this: 'you would never think, either that so many buildings could be got 'inside a single wall; or that a building with so simple an elevation could be so 'bewilderingly complicated in plan.'

5. *Two sets of rooms.* How did Herodotus come to suspect the existence of a basement, if it was not 'open to the public'? and why were there not far more chambers in the basement than above? The answer to both questions is given by the only complete answer to a third, which is this, 'why speak, below, of "devious windings through the courts"?' The courtyard extended to the basement, through both storeys; from the ground floor colonnade, therefore, you could see, by merely looking down into the court, that a basement existed, 'worth seeing' like the floor that you were on; and the reason why you had to make 'devious windings' round three sides of the first floor, to reach the door opposite to that by which you entered, was not that you were 'requested to keep off the grass,' as in an Oxford quadrangle, but that if you *had* tried to cross the court you would have fallen into the basement and broken your neck.

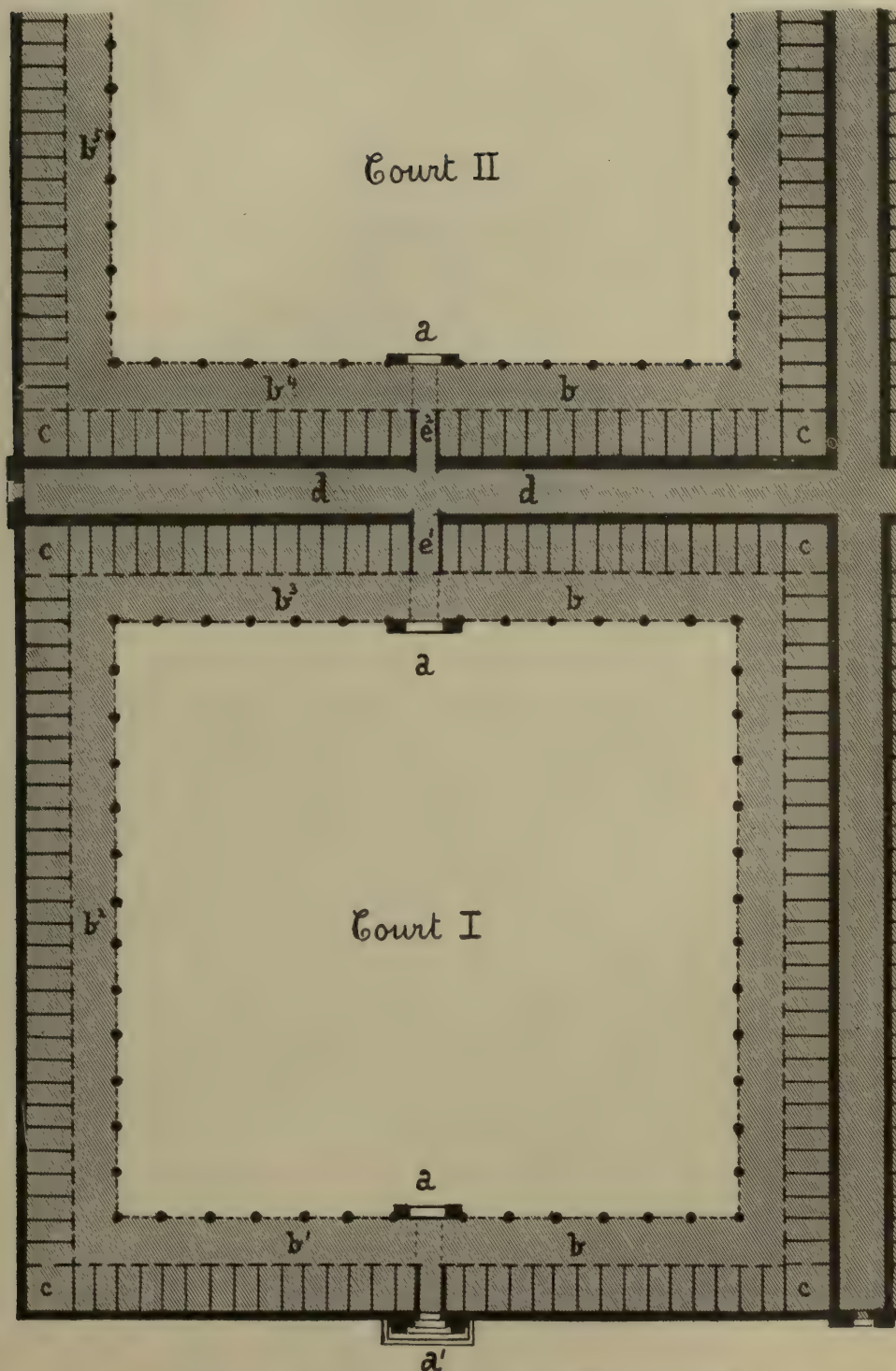
6. *Fifteen hundred in each set.* I do not think it is necessary to lay much stress on what may be 'round numbers'; but supposing these totals to be accurate, let us see how they work out. Twelve courts, which make a continuous whole, and are in two series, are to divide between them 1,500 rooms. This gives 125 rooms to each court. As the courts are four-sided, this gives (a) thirty rooms actually opening on to each side of a court; (b) four rooms in the blind angles, approached not from the court but through an adjacent room; and (c) one room to spare. What this one supernumerary room was, is clear from what follows; for the visitors were taken 'from a court to its rooms, and from the rooms to corridors, and . . . to other courts from their rooms': in other words, between court and court (as you go down a series, in which the courts were 'door to door' with each other) access is given by a 'passage-room' intercalated between, and supernumerary to, the fifteen normal rooms in each half of each eastern (or western) wall. Such a passage-room counted only for one, though of course it opened on to two courts.

7. *Most elaborate.* I suspect that *ποικιλότατοι* means more than merely 'complicated': it was quite as much the carved and painted decoration, as the elaborate planning, which brought 'ten thousandfold wonder' to the eyes of Herodotus. As he says below, the walls were covered with figures cut into them, and these, as we know, would be painted vividly.

8. *As we went in-and-out, etc.* Here we have the key to the ground plan in detail. Starting from a court, you enter its rooms (or some of them); from one of these, serving as passage-room, and one member of the vista through all the courts, you enter a corridor. The word *παστὰς* is the Greek equivalent of the Roman architect's *cryptoporticus*, i.e., a corridor with no external wall; Strabo (811) speaks of the *κρυπταὶ τινες μακრაὶ καὶ πολλαὶ*, meaning secret passages, or *crypts* in the strict sense of the term. This corridor therefore ran all round behind the rooms which open on Court I, and separated them from those which open on Court II. Crossing this corridor then, you enter (by a back door) another passage room. This at first sight looks as if it were itself part of a cloister: for you are coming from a dark corridor and are confronted by the bright light of Court II. This is why it is described as a *στέγη*; but a moment later this error is corrected, and when you pass on next into Court II, the proper word (*οἶκημα*) is used for the passage room by which you reach it. This change from *στέγη* to *οἶκημα* is the only break of sequence in the whole sentence; and like most things in Herodotus, it means precisely what it says.

9. *Figures cut into them.* Here again the phrase is precise and suits accurately the 'sunk relief' which is characteristic of Egyptian wall-carving at all but the very earliest periods.

10. *At the corner where the Labyrinth ends: i.e., nearest to the point at which visitors leave it.* If the ruins at Arsinoë-Crocodilopolis, described by Lepsius, are really the remains of the Labyrinth, the slightly eccentric position of the pyramid of Amenemhat III shows that the visitor's exit was through a door in the north wall.



PROBABLE GROUND PLAN OF THE EGYPTIAN LABYRINTH
in accordance with the description given by Herodotus.

The Diagram shows Court I and part of Court II of the first series of six, and the adjoining wall of Courts I and II of the second series.
The shaded parts are to be regarded as covered by a flat stone roof: the Courts themselves are open.

- a—a the vista of doorways from court to court.
b—b the cloister-colonnade, with thirty rooms on each side.
c—c the four angle-rooms.


- d—d the corridor separating adjacent courts.
e—e the passage-room from Court I to Court II.

The progress of the visitors would be as follows: a¹ b¹ b² b³ e¹ d—d e² b⁴ b⁵.

AN EGYPTIAN FUNERARY CAP

By ROBERT MOND

WITH THE FRONTISPIECE OF VOLUME III

Whilst exploring the tombs on the eastern flank of the hill of Sheik Abdel Gumah in the cemetery of Thebes during the winter of 1905-1906, I cleared out a mummy pit which adjoins and can be entered into from the tomb of Nes-pa-nefer-Her. In this tomb I found the mutilated remains of the burial of  Rusa of the time of Thothmes IV. Amongst the different articles found was the object which is represented by the coloured photograph of the water-colour sketch to scale, which I owe to the kindness of Mr. Howard Carter, the then Chief Inspector of Antiquities for Upper Egypt. This object, which is 7 cm. diameter, and made of layers of linen gummed together, about 1 cm. thick, is ornamented as seen in the accompanying illustration. From its shape, size and decoration, with three string loops attached, I assume it to be the funeral cap in which the deceased and their relatives are generally represented in the mural decorations of the Theban cemetery. The lotus flower which decorates the top of this cap precludes its use as a basket, and the three loops were evidently used for attaching this cap to the large wigs worn at that period.

A TYPE OF FIBULA OF THE EARLY IRON AGE, APPARENTLY PECULIAR TO CYPRUS

By J. L. MYRES

WITH PLATE XXXII

Among the contents of the Cypriote tomb which forms the subject of my paper on pp. 107-117 of this volume of the *Annals*, the fragmentary fibula No. 5 was left for the moment without full discussion. The reason for this was that the position of this type of fibula in the archaeology of Cyprus has been much misunderstood in the past, and is even now not very clear. The presence of a fragmentary example of it in this tomb-group contributed therefore but little to our knowledge of the date of the group of objects as a whole. On the other hand, the fairly accurate date which I found to be assignable on other grounds to the whole group of objects, is of some importance for the proper dating of this type of fibula; so I propose to summarise in this place our present knowledge about it.

The Principal Types of Cypriote Fibulae

The fibulae which were in use in ancient Cyprus fall into four main groups. First comes the characteristic Mycenaean type, long and narrow, like a modern safety-pin or a fiddle-bow; its catch is only a little wider than the wire which forms the rest of the back or 'bow' of the fibula. This type was well represented by two examples in the British Museum's excavations at Enkomi, near the site of the Cypriote Salamis.¹ These two fibulae, in spite of differences of detail, are identical in type with examples from Late Mycenaean tombs at Mycenae itself.²

As no specimens of this first type had been discovered in Cyprus when the Cyprus Museum was catalogued by Dr. Ohnefalsch-

1. MURRAY, SMITH, and WALTERS, *Excavations in Cyprus*, London, 1900, p. 10, Fig. 27 (Nos. 788, 1511).

2. TSOUNTAS, 'Εφημερίς Ἀρχαιολογική. Athens, 1888, Pl. ix, Figs. 1, 2.

Richter and myself,¹ our numerical classification began with what has turned out to be morphologically the *second* type. In this type the bow, though still symmetrical, or nearly so, is slightly swollen in the middle, with a bead-like ornament near each end. It is also slightly curved, so as to embrace a deeper fold of drapery when in use. Examples are *CMC* 4821-3, none of them very satisfactorily dated,² though 4821, from Limassol, was found associated with (1) a proto-Corinthian aryballos, painted with the well-known running-hound ornament; (2) a blue paste scarab, much defaced, of a type which is common in Cypriote tombs of the Early Iron Age; (3-4) two steatite scarabs, one of which bears the name of Thothes III, a very popular 'word-of-power' in Cyprus at all periods down to the XXVIth Dynasty.³ An oddly-repaired fibula with curved pin, from Curium,⁴ is of the same type, and there is another, very like it, but with more highly-decorated bow, in the Cesnola Collection in New York.⁵ In spite of the morphological priority of this type over the next to be described, there is at present no good evidence that it is earlier chronologically. It also seems to have persisted long enough to overlap the fourth type, as in Tomb I at Curium (see note ⁴).

The *third* type in order of development is that which stands as 'type ii' in the *Cyprus Museum Catalogue*, and is best represented there by *CMC* 4824. The catch is still narrow, as in the previous types, but is separated from the bow (which has the same swollen and beaded form as the second type) by a very long stilt or fore-arm, which meets the forward end of the bow at an acute angle, and gives to the whole fibula a lop-sided and ungainly look. The

1. MYRES and OHNEFALSCH-RICHTER, *Cyprus Museum Catalogue*, Oxford, 1899, p. 138; quoted hereinafter as *CMC*.

2. The only other object which I can trace from the tomb *Poli* 253 III, in which the fibula *CMC* 4822 was found, is a kylin of common Attic black glazed ware *CMC* 1810, which may be as early as the end of the fifth century, but would hardly be accepted, even by the British Museum's cataloguer (see p. 141, note 1) as having anything to do with a fibula of our 'second type.'

3. *CMC*, p. 175; S. REINACH, *Chronique d'Orient*, I, p. 199; OHNEFALSCH-RICHTER, *Kypros*, p. 456, Pl. clii, 18. The excavation was tumultuary; but as the only other results of it were a Roman lamp and some bits of late bronze work, there can be very little doubt that the objects described in the text represent a single small and early tomb-group.

4. MURRAY, &c., *Excavations in Cyprus*, p. 68, Fig. 94, from Tomb I, which also contained a fibula (Fig. 95) of the fourth type, to be described below.

5. L. P. DI CESNOLA, *Atlas of the Cesnola Collection*, New York, Vol. III, Pl. xli, 2, reproduced in Pl. xxxii, 1 herewith.

reason for the prolongation is, as before, to permit the fibula to enclose a still deeper fold of drapery.

In Cyprus, this type was first found at *Kouklia* (the ancient *Paphos*) in very early tombs of slightly post-Mycenaean date; two examples, of gold, are in the Ashmolean Museum (Nos. 1197-8.88), and another is in the Cyprus Museum (*CMC* 4824). Another golden one was found in the British Museum's excavations at Zarukas near Maroni, on the south coast of the island.¹ Yet another golden example of this type is in the Cesnola Collection in New York;² but in this example the bow and its prolongation, or fore-arm, instead of being each straight or nearly so, and joined at an angle with each other, are bent into a single curve of nearly a semi-circle.³

The relative age of the *Kouklia* fibulae is well established by their association with native imitations of 'false-necked' vases, and other characteristic sub-Mycenaean pottery, of the Age of Transition from Bronze to Iron.⁴ Two bronze examples, exactly like the golden ones, were found in the British Museum's excavations at Episkopi (the ancient *Curium*), one in a Late Mycenaean tomb (No. 102),⁵ the other in a tomb (No. 98) described in the official report as 'double, one chamber of Early Bronze Age date, the other of the seventh century B.C.'⁶ As, however, the same report says that the *Kouklia* tombs themselves 'need not be dated earlier than the seventh century,'⁷ it may fairly be inferred that the excavators at *Curium* thought that their tomb 98 was

1. WALTERS, *Journal of Hellenic Studies*, XVII, p. 13.

2. CESNOLA, *Atlas*, III, Pl. xli, 1; PERROT and CHIZEP, *Histoire de l'Art dans l'Antiquité*, III, Fig. 59.

3. This form recurs in very late Mycenaean graves in the Attic Salamis (Athens Museum). The pottery of these graves is comparable with that of Assarlik and *Kouklia*, though probably a little earlier; the only other type of fibula in them is the primitive safety-pin. The *Kouklia* type occurs also in Crete at *Gournia* (Candia Museum, No. 614) and Kavusi (Candia Museum, Nos. 519, 520, 521). This type leads, in its turn, to rarer stilted varieties, only known at present in silver or bronze, in which the forearm is more or less merged in a nearly semi-circular bow. *CMC* 4825-39. CESNOLA, *Atlas*, III, Pl. xli, 4, 6, 8; OHNEFALSCH-RIECHTER, *Kypros*, p. 466, Fig. 260 (=Pl. xxxii, 2.)

4. *CMC*, Index, s.v. *Kouklia*: and specimens in the Ashmolean Museum.

5. *Excavations in Cyprus*, p. 68, Fig. 92: see also p. 82 for the other contents of this tomb.

6. *Excavations in Cyprus*, p. 68, Fig. 93. See also pp. 80-1.

7. *Excavations in Cyprus*, p. 68, note 1.

approximately of the Kouklia type.¹ Outside Cyprus, precisely the same type has occurred in tombs at Assarlik (ancient *Termera*) in Caria,² together with Late Mycenaean and sub-Mycenaean pottery; some of the vase-forms resembled closely those of the pottery from Kouklia.³

The *fourth* type is that with which this paper is primarily concerned.⁴ In this type (to repeat the description already given on p. 108 of these *Annals*), the bow, instead of being curved in a generally convex form, consists of two symmetrical limbs which are each slightly concave in profile, and are joined beneath a prominent knob which occupies the middle part of the bow.⁵ The knob is carefully modelled, in a roughly four-faced form, rather like a bishop's mitre, and is separated from the two divergent limbs below it by a circular collar or disc, which runs out to a sharp edge. Both limbs of the bow are decorated with transverse ridges and projections, which look as if they were intended to

1. It must be remembered throughout that the British Museum publication assumed, as proved, a much later date for the Mycenaean Age than had for some while been current among the large majority of archaeologists. The same extraordinary misconception reappears in the British Museum's *Catalogue of Bronzes*, published likewise in 1899. I quote the passage in full (Introduction, p. lx):—

'In Cyprus the earliest fibulae are developed from the safety-pin type, and assume an elliptical form, with two slight projections on the bow (see Nos. 57, 1946, 1947); this form is commonly found in tombs dating from 700 to 500 B.C.' This ignores altogether the actual 'safety-pins' from Enkomi, which had been excavated by the British Museum's own people three years before, and ignores also the ceramic evidence from Kouklia.

2. PATON, *J.H.S.*, VIII, p. 74, Fig. 17.

3. A rather more primitive variety is represented by a Cretan fibula from the Mitsotakis Collection (now in the Candia Museum, No. 413: its precise locality is unknown), in which a long, narrow fibula of 'safety-pin' form is provided with a forearm so short as to be evidently tentative. Compare also an early stilted example from Gournia (Candia Museum, No. 617), and one from Zakro (Candia Museum, No. 386), which has the stilt at the rear-end, just above the spring-coil. This last variety reappears at Galaxidi (Ashm. Mus. No. 118.94).

4. Examples are *British Mus. Cat. Bronzes*, 1948-9 (locality unknown, cf. UNDSET, *Zeitschrift für Ethnologie*, 1889, p. 216, Fig. 21); 1950 (from Amathus, Tomb 52); 1952 (from Curium, Tomb 67) = *Excav. Cypr.*, Fig. 97; 1953 (Curium, Tomb 6) = *Excav. Cypr.*, Fig. 96; 1954 (Curium, Tomb 1) = *Excav. Cypr.*, Fig. 95; from the same tomb came the oddly repaired fibula of the second type, *Excav. Cypr.*, Fig. 94; see above, p. 139; *Cyprus Museum Catalogue*, 4840 (Amathus, Tomb 263); 4842 (Curium, Tomb 2; see also *CMC*, p. 182); CESNOLA, *Atlas*, III, Pl. xli, 5. See Pl. xxxii, 4, 5, 6, 7, 8.

5. Compare the description in *Brit. Mus. Catalogue of Bronzes*, *Introd.*, p. lx. 'A more peculiarly Cypriote type is represented by Nos. 1948-1954; here the bow takes a triangular form, with a bulbous knob at the apex; each arm of the bow is ringed at intervals, and has a flat, oblong piece attached by the middle; the sheath-like foot' [i.e., catch] 'tapers to a point. These fibulae are found in the "Graeco-Phoenician" tombs of the sixth and fifth centuries at Amathus, Curium, and elsewhere. (See Myres *C.M.C.* 4840-2.)' I need hardly add that if the reader will 'see Myres,' as directed, he will find no support for the cataloguer's dating. No support is given, either, by the examples of pottery found in Tomb 1 at Curium, together with fibula B.M., 1954; [*Excav. Cypr.*, Fig. 129, 1 (approximately of Kouklia type), Fig. 133 (early red ware)]; nor by the steatite gem, Pl. iv, Curium series, No. 2.

represent a pair of double-edged axe-heads, strung, like beads, by means of their shaft-holes, and each secured in its place on the bow by a pair of clamp-like collars or settings which grip them fast. Beyond these principal adornments come other beads and collars, like those of other fibulae in the Early Iron Age, both in Cyprus and elsewhere. It will be understood that in normal examples of this type, the axe-heads, their settings, and the other ornaments of the bow, are cast in one piece with the rest of the fibula: the description just given indicates only the apparent design. There exists, however, one fine specimen, in the Cesnola Collection,¹ in which the double-axe-shaped ornaments are not in bronze, but in some perishable material, either glass-paste, or perhaps iron, which was still a 'precious metal' in the first days of the Iron Age in Cyprus. In some examples, the pin of the fibula is distinctly bowed outwards, so as to embrace a larger fold of drapery when in use; and the tapering catch is tilted a little to suit it. This bowed pin recurs in that rare Cypriote type of fibula in which the bow, instead of running out into a spring-coil, has its hinder end thrust rivet-like through a loop in the butt-end of the pin, which is made in a separate piece.²

The 'Fourth Type' of Cypriote Fibula, and its Western Affinities

It is not easy to determine the affinities of this type of fibula. All the known examples of it come from Cyprus, and closely resemble each other. The clue to its history must clearly be sought in the central knob and collar; and fortunately there is just sufficient variation in the form of this knob to give us such a clue. Most examples have the knob either pear-shaped,³ or olive-shaped,⁴ or roughly four-faced.⁵ Some, like the fragmentary specimen figured in Plate XXIX, 5, have a strongly-marked lateral angle, as though the knob were conceived as exposed to pressure along the length of the bow.⁶ One example⁷ alone shows the knob carefully

1. CESNOLA, *Atlas*, III, Pl. xli, 5: = Pl. xxxii, 8.

2. I only know two examples: (1) *Excavations in Cyprus*, p. 68, Fig. 94, from Curium, found in the same Tomb 1 as Fig. 95; (2) CESNOLA, *Atlas*, III, Pl. xli, 2.

3. UNDSET, *l.c.*, Fig. 21; *Excav. Cypr.*, Fig. 96: = Pl. xxxii, 6, 7.

4. CESNOLA Collection (new numbering; not published in *Atlas*), No. 294; *Excav. Cypr.*, Fig. 95. = Pl. xxxii, 4.

5. CESNOLA Collection, Nos. 295-296; *Excav. Cypr.*, Fig. 97. = Pl. xxxii, 5.

6. CESNOLA Collection, Nos. 298-300; No. 297 is flattened laterally instead of transversely.

7. CESNOLA Collection, No. 306: cf. Pl. xxxii, 8.

hollowed on each side, as if it were formed of a loop or kink in the bow itself, and as if the collar had originally been a separate ring of metal, thrown round this kink, to prevent it from being strained open again by use.

That our knob-and-collar fibula really originates in this way is the more probable, because a rare type of fibula is found in Cyprus¹ and on the Syrian coast,² and perhaps also elsewhere,³ in which a symmetrical bow is simply bent in the middle nearly to a right angle, its whole curvature being, as it were, summed up at its middle point.

The idea of gaining more elasticity than the normal spring-coil could supply, by supplementary coils or loops in the bow, is not confined to the Levant; where, indeed, it is rare and exceptional. In Crete, at Gournia, a very early fibula,⁴ developed from the primitive fiddle-bow type, has two such loops, making acute angles at either end of a nearly flat bow, the middle part of which is moreover slightly concave, like the two limbs of the bow in our Cypriote type. Another Cretan fibula, from Phaestos, has no less than four such loops, each bending round through more than 180°, so that the whole bow is deeply sinuous.⁵ And yet another Cretan type has a continuous series of spiral loops, running all the way down the bow from the spring-coil to the catch, so that the whole bow now serves to supplement the elasticity of the spring-coil properly so called.⁶

These intermediates, and a remarkable series of similar types among the bronzes of Olympia⁷ (which are commonly regarded as

1. CESNOLA, *Atlas*, III, Pl. xli, 3 : = Pl. xxxii, 3.

2. From Tartus, in the Ashmolean Museum, No. 40, 90, unpublished.

3. A specimen, of unknown locality, is in the National Museum at Athens. It was formerly in the Collection of the Greek Archaeological Society. UNDSSET (*l.c.*, p. 224, Fig. 36) very naturally ranked it with the Western 'leech-shaped' fibulae (the *fibula a sanguisuga* of the Italian archaeologists), which it resembles superficially; but there can be little doubt now of its true place in the series. Compare also Ashmolean No. 119.94.

4. Candia Museum, No. 615. It should be noted that this fibula is also made of two pieces; the hinder end of the bow being thrust through an eyelet in the pin (as in the rare Cypriote type described above) instead of forming a spring-coil continuous with the pin. Compare the thoroughly 'serpentine' example from Cydonia, Ashm. Mus. G. 329.

5. Candia Museum, No. 378. Compare *Monumenti Antichi*, XII, p. 105, Fig. 38.

6. Three examples :—(1) Candia Museum, No. 262, from Psychro.

(2) FABRICIUS, *Athenische Mittheilungen*, p. 67, Beilage, Fig. 8 = UNDSSET, *l.c.*, Fig. 20.

(3) Ashmolean Museum, No. 117.95, bought long ago at Canea, unpublished.

7. Quoted by UNDSSET, *l.c.*, p. 228, Figs. 41, 44, 45. Compare the serpentine fibula with flat plate, *Brit. Mus. Cat. Bronzes*, 2026 = Fig. 35 2036 = Fig. 36; and the long series of variants, 2025-2052.

illustrating the 'western' affinities of that site), link up the Levantine examples with the *fibula serpeggiante* of Italian archaeologists. This 'serpentine' type belongs to both shores of the Adriatic, and runs down into Sicily, in tombs at Cozzo Pantano and Cassibile near Syracuse, which contain native imitations of Mycenaean vases.¹ The Sicilian tombs also contain the elbow-shaped *fibula a gomito*, with the bow bent to an acute angle of about 60°, between a forward limb, which is straight, and a hinder limb, which is concave, as in our Cypriote type.² There is, in Sicily, even a 'broken-backed' type, in which the sides of the loop are actually parallel, and both limbs of the bow are concave, though still unequal in length.³ Nothing, in fact, is wanting in this last Sicilian variety, except a collar round the loop, to convert it into the immediate ancestor of our Cypriote type.⁴

It can now hardly be an accident that most of these western fibulae have the same strongly-curved pin as the Cypriote type, or that, in describing the fibulae from Cassibile, Mr. Peet should have to note that 'a model axe threaded on the pin of a fibula copies the usual form of this period.'⁵ Probably in Sicily, as in the rest of the *penumbra* of the Minoan civilisation, the axe had the same symbolic value as an amulet as it had at Knossos itself.

1. PEET, *Stone and Bronze Ages in Italy*, Oxford, 1909, ; Cozzo Pantano, p. 437 ; Cassibile, p. 447, Fig. 243 ; compare the 'harp-shaped' type, Fig. 344.

2. PEET, *l.c.*, Fig. 285. Cavetta (two *serpeggianti*), p. 455 ; Grammichele (*serpeggiante*), p. 459.

3. PEET, *l.c.*, Fig. 246.

4. It is testimony to the discernment of Undset that, writing in 1889, with only the three British Museum examples before him, he should have described the Cypriote type as 'certainly considerably later' (*gewiss bedeutend später*, *l.c.*, p. 219) than the eight-looped serpentine fibula from Crete. (FABRICIUS, *Ath. Mitth.*, X, p. 67, Beilage, Fig. 8 = UNDSET, *l.c.*, p. 216, Fig. 20.)

5. PEET, *l.c.*, p. 448.

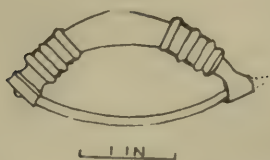


FIG. 1. SYMMETRICAL BOW, RIVETED
THROUGH A SEPARATE PIN.
(CESNOLA, *Atlas III*, xli, 2.)



FIG. 2. STILTED BOW, WITH CURVED
FORE-ARM: CURIUM.
(OHNEFALSCH-RICHTER, *Kypros*,
p. 466, fig. 260.)



FIG. 3. ANGULAR BOW.
(CESNOLA, *Atlas III*, xli, 3.)



FIG. 4. TYPE IV: CURIUM, TOMB 1.
(*Excav. Cypr.*, fig. 95.)

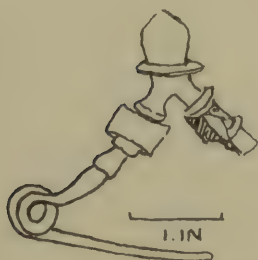


FIG. 5. TYPE IV: CURIUM, TOMB 6.
(*Excav. Cypr.*, fig. 96.)

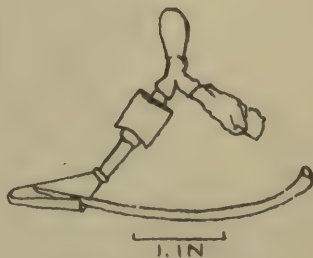


FIG. 6. TYPE IV: CURIUM, TOMB 67.
(*Excav. Cypr.*, fig. 97.)



FIG. 7. TYPE IV: BRITISH MUSEUM.
UNSET. *Z. f. Ethn.*, 1889, p. 216, fig. 21.)

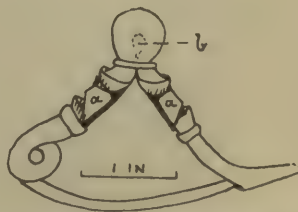


FIG. 8. TYPE IV: NEW YORK.
(CESNOLA, *Atlas III*, xli, 5.)

GREEK INSCRIPTIONS FROM THESSALY

By A. M. WOODWARD

The following inscriptions were found and copied by Messrs. A. J. B. Wace and M. S. Thompson of the British School at Athens during two journeys in Thessaly, the first of which was undertaken in January and February, 1910, and the second in April. They are all apparently unpublished, none being in the new *Corpus* of Thessalian inscriptions,¹ and I am much indebted to their finders for permission to publish them here, and to Mr. M. N. Tod, Lecturer in Greek Epigraphy at Oxford, for valuable suggestions and criticism. The order in which they are printed follows that in which they were seen, with the exception of Nos. 7-10, which were found on the second of the two journeys, and this corresponds with the order in which the districts of Thessaly are arranged in the *Corpus*. As it was unfortunately impossible to take squeezes of these stones, I have to rely entirely on the copies in Mr. Wace's note-book. These copies were made sometimes under difficulties, and Mr. Wace readily admits that several readings cannot be considered as certain. Under these circumstances, I hope that the number of emendations suggested will not seem excessive; in some cases, where the text seems hopeless, I transcribe the letters as in the copy. Where the reading is certain, the text of the longer inscriptions is given in minuscules only.

1. A DEDICATION TO THE EMPERORS DIOCLETIAN AND MAXIMIAN.

At *Râches* (2½ hours to E. of Styliðha, and ca. 2½ hours to S.W. of Larissa Kremaste), outside the village *café*. Circular base of blue marble, broken above, measuring .45 m. × .85 m. Letters .04 m. high, poorly cut. Letter forms: ΑΕΛΞCΩ.

1. *Inscriptiones Graecae*, ix, 2, [1908].

Dedications to these Emperors in the Greek language are far less common in Greece than in Asia Minor and other parts of the East. There is an Attic inscription in honour of Diocletianus and Maximianus (Hercules) alone,¹ which is presumably earlier than the year 292, when the other

Οὐαλερίῳ Διοκλητιανῷ
καὶ Μάρκῳ Αὐρηλίῳ Οὐαλε[ρίῳ]
Μαξιμιανῷ Σεββ., καὶ Φλαβίῳ
Οὐαλερίῳ Κωνσταντίῳ
καὶ Γαλερίῳ Οὐαλερίῳ
Μαξιμιαν(ῶ) τοῖς ἐπιφα-
νεστάτοις Καίσαρσιν
εὐτυχῶς.

two persons mentioned here, Flavius Constantius (Chlorus) and Galerius Maximianus were adopted as Caesares. We may compare an inscription from Thrace,² which commemorates all four Emperors, and in the same order as here, but without their *praenomina*, and two inscriptions in Syria³, which give us almost exactly the same titles as our present inscription.⁴

For the use of εὐτ(υ)χῶς in similar inscriptions compare Dittenb. *O.G.I.* 520, l. 15. The spelling εὐτιχῶς (if the I is copied correctly) need not surprise us at this late period, though no other instance is known of the substitution of *ι* for *υ* in this particular word.⁵ The date is between 293 and 305 A.D.

2. A MONUMENT TO A BOY ATHLETE.

At *Ráches*, in the church of "Ἅγιος Χαράλαμπος. Base of blue limestone, .23 m. × .45 m. × .18 m. Letters .015 m. high. Between ll. 1 and 2 is a space of *ca.* .02 m.

In l. 1 nothing is legible between the *η* and the *υ* in the second name, but the length of the gap suggests 'H[γήμο]νος or 'H[γέμο]νος as a likely restoration. Neither the victor nor his father can be identified: the former name only occurs twice in Thessalian

[N]έων 'H[γήμο?]νος
[T]όνδε διαυλοδρόμον παῖδας νικῶν-
τα Νέωνα Δελφοῖς εἰκόνι τῇδε ἐσ-
τεφάνωσε πατρίς.

Letter forms: Α Ε Γ Ξ.

1. *I.G.* iii, 539.

2. *C.I.G.* 2018.

3. DITTENBERGER, *O.G.I.* 612 and 769.

4. It is interesting to note that two Roman milestones containing these four Emperors' names have been found in Thessaly, *C.I.L.* iii, 7360, 7361.

5. See JANNARIS, *Hist. Greek Grammar*, p. 48, sec. XXXV, for instances of this usage.

inscriptions, whereas there is no certain instance of Ἡγήμων or Ἡγέμων as a Thessalian name.¹

We know from Pausanias² that the boys' race in the δίαυλος was one of the original contests introduced when the re-organization of the Delphic festival as an athletic meeting took place, Ol. 48, 3 (586 B.C.). The date of this inscription cannot be fixed at all exactly, but is probably not before the middle of the second century B.C., as at an earlier date we should have expected τῆιδε, not τῆδε.³

3. AN EPITAPH?

At *Chamákou* (1½ hrs. to N.W. of Phano, the ancient ANTRON), found built into the wall of a ruined house in the village. Slab of marble broken on the left but perhaps complete on the right. .34 m. × .21 m. × .08 m. Letters, in ll. 1 and 2, .02 m. high, elsewhere .01 m.

-	-	-	Βρασ	-
-	-	-	σαλλι	-
-	-	-	ν δορι πολ	-
-	-	-	ι]κεο τᾱι[δ]ε	-
-	-	-	αιονι καλ	-
-	-	-	οὐ γὰρ ἰ	-
-	-	-	αο	-

I prefer not to attempt a restoration, but will content myself with suggesting that we have perhaps to deal with a grave-stone, the name and patronymic of the deceased occupying ll. 1 and 2, while the rest of the stone may have contained a metrical epitaph. As we cannot tell how much is lost, it is useless to try to reconstruct the whole text. Judging by the letter forms, the inscription may very likely date from the fourth century B.C.

4. A DEED OF MANUMISSION.

At *Tchatmá* (ca. 3 hrs. to S. of Pharsala). Stela of grey marble, broken above and below, complete on right, and slightly chipped on

1. See *I.G.* ix 2, index I.

2. X, 7, sec. V. See also FRAZER, *Pausanias*, Vol. V, pp. 244, 245.

3. See MEISTERHANS-SCHWYZER, *Grammatik der attischen Inschriften*, p. 67, and note 587c, for instances of the omission of *iota adscript* in Attic inscriptions of the 2nd century B.C.

left, .67 m. × .38 m. × .09 m. Letters .015 high, with slight apices. Letters ΑΕΘΠΣΩ. The surface of the stone is very much weathered in certain parts.

- - - ἡμνὸς Πα -
- [νήμου - -] γ·ανα Βίθνος ἀπ[ὸ]
- Ἐρ[μ]α(γ)[ό](ρ)α ἔδωκεν . . .
- . . . ἄργυρίου στατήρας δεκαπέ -
- 5 [ντε· μῆ]νὸς Ἀφρίου ὀγδόῃ Μηνόφιλ -
- [ος - - κα]ὶ Ὀλυμπιόδωρος Κλεοδ -
- [άμου ἀπὸ Ἀσ]κλειπιοῦ τοῦ Σωφρονί[σ]κου
- [ἔδοσαν(?) ἱ]ερὸν τῇ πόλει ἄργυρίο -
- [ν στατή]ρας δεκαπέντε.
- 10 [Μην]ὸς Ὁμολοῖου Σωτηρὶς Βίθνος ἀπ[ὸ]
- [Δαμοξ]ένου τοῦ Σωτέ[λ]ους ἔδωκε στατήρα[ς]
- [δεκ]α[π]έντε · Ἐλευθέριον Ἀφθονήτου [ἀπ] -
- [ὸ Φιλο]δάμου τοῦ Πυρράνδρου ἔδωκε στ[ατή] -
- [ρ]ας δεκαπέντε. Στρατηγούνη[ος]
- 15 [Καλ]λίστράτου οἱ ἐξελευθερω(θ)έντ[ε]
- [ς τ]αμιεύοντος [Β]αβυ[ρτ]ά[δ]ου Ἀγ[ρ]ιω(?) -
- ν[ι]ου πέμπτη Αἰνησαγόρας Ἰ . . .
- [- - ἀπὸ] Παναι[νέ(?)]του τοῦ Δικαιάρ[χου] ἔδωκε(?)
- [- - κα](τ)ὰ (τὸ)ν νόμον.
- 20 [Στρα]τηγούνητος Ἀνδροσθένους τ[οῦ]
- [Ἀν]δρογένου(ς?) Γυρτωνίου, ταμιεύ[οντ]
- [ος -]δροσ(τρ)άτου τοῦ Σωτέ(ο)υ ο[ἱ] ἀπελε -
- [υθερωθέ]ντες μῆνὸς Ἀπ[ο]λ[λ]ωνί[ου] δεκ -
- [άτη], (Δ)ιο[φ]άνης Ἰστιαίου ἀπὸ Σα·μεί[ου τοῦ]
- 25 Πυρρίου καὶ ἔδωκεν στα[τήρας] δεκα -
- [π]έντε.
- Στρατηγούνητος Γοργίου τοῦ Φιλίσ[κου]
- Γυρτωνίου, ταμιεύοντος Ἀσταμα . . .
- [τ]οῦ Τυχαίου οἱ ἀπελευθερωθέντες
- 30 μῆνὸς Ἀφρίου τρίτη, Ἀρμενος Φιλο[δῆμ] -
- [ου κ]αὶ Ἀρχί(β)ουλος Ἀγάθωνος ὑ(π)ὸ [Φι] -
- [λο]δήμου τοῦ Πυρράνδρου καὶ ἔ[δωκε] -
- ν ἑκάτερος αὐτῶν τοὺς δεκα[πέ] -
- [ν]τε στατήρας.
- 35 - - - νε - -

The reading is still uncertain in a few places. In l. 2 the name before Βίθυος may be Νάνα (*I.G.* ix 2, 550, 568). In l. 3, *ad init.*, Ἐρ[μ]α(γ)[ό](ρ)α is far from certain: ΑΕΔΩΚΕΝ . . . , we should perhaps read ἔδωκεν [τῇ π|όλει]. There is hardly room for ἱερὸν τῇ πόλει which seems to be certain in l. 8. L. 12, *ad init.*, where the copy gives ΩΡΑ·ΕΝΤΕ κ·τ·λ·; *ibid.*, *ad fin.* after Ἀφθονήτου ΑΕ: this must certainly be altered, as shown in the text, to ΑΠ | Ο . . . L. 16, where the copy gives ΑΒΤΤΤΑΡΟΤΑΓΙΗΡ·; the first nine letters as they stand do not represent a name, but with the change of only three letters and the insertion of a *beta* we obtain Βαβυρτάδου,¹ which I have restored in the text, as no other name involved so few alterations. The last five letters conceal the name of a month, which was probably Ἀγριω|νίου, though it might possibly have been Ἀγαγυλ|ίου or even Ἀγναίου.³ L. 19 should perhaps read [κα](τ)ὰ (τὸ)ν νόμον, which involves a change of ΠΑΕΝ into ΤΑΤΟΝ, as the former letters do not mean anything as they stand. L. 22, the copy has ΔΡΟ·ΣΠΑΤΟΤΤΟΤΣΩΤΕΦΤΟΑΠΕΛΕ. We have no doubt some name ending in -στράτου, which it is not easy to restore, though it is not impossible that it was Κ](λε)οσ(τρ)άτου: this however fails to account for the letter marked as missing before the Σ. That Π conceals TP I have no doubt, and ΑΕ is not very unlike ΔΡ, especially on a worn stone. The father's name must be restored as Σωτέ(ο)ν (Ο for Φ), and Ι has dropped out before the Α of ἀπελε | [υθερωθέ]ντες. L. 24, ΑΙΟ·ΑΝΗΣ is presumably (Δ)ιο[φ]άνης. ΣΑ·ΜΕΙ is probably to be restored as Σαμεί[ου], the genitive of Σαμείας [= Σαμίας³], and there may be no letter lost between the Α and the Μ. L. 28, ΑΣΤΑΜΑ . . . is probably Ἀστ(ο)μά[χου], the second Α being marked as uncertain in the copy, and no name beginning Ἀσταμ- being known. L. 29, *ad init.*, I have altered ΔΟΤ to ΤΟΤ. L. 31, *ad fin.*, ΤΙΟ should probably be ἰ(π)ό.

There is no need to discuss at any length this class of documents, of which about a hundred and fifty are collected in the Thessalian volume of the *Corpus* (*I.G.* ix, 2), and to which special studies have

1. Compare *I.G.* ix 2, 495, which contains the name Ἀβυρτάδης corrected plausibly by Wilhelm into [Β]αβυρτάδης, *Beiträge zur griechischen Inschriftenkunde*, pp. 321, 322.

2. It is hardly conceivable that this conceals the name of the father of the ταμίας, as there would not be sufficient room for the name of the month after it.

3. For this name see *I.G.* ix 2, index 1 s.v.

been recently devoted. The question of manumission has been treated comprehensively by Calderini,¹ and Thessalian manumission-records have been discussed by Rensch²; to these two works the reader may be conveniently referred, as the present inscription does not differ in any way from the commoner types, or call for fresh treatment of any of the points contained in it. The formulae employed may be analysed as follows:

- (1) Name of the Presiding Officer, *Στρατηγός* (ll. 15, 20, 27).
- (2) His patronymic and name of city (ll. 20, 27).
- (3) Name of the Treasurer, *ταμίης* (ll. 16, 22, 28).
- (4) His patronymic (ll. 22, 29).
- (5) The persons set free, *Οἱ ἐξ(οῦ ἀπ-)ελευθερωθέντες* (ll. 15, 22, 29).
- (6) Name and day of the month (ll. 1, 5, 10, 17, 23, 30).
- (7) Name of the slave manumitted (ll. 2, 5-6, 10, 12, 17, 24, 30-31).
- (8) Name in the genitive (ll. 2, 6, 10, 12, 17-18, 24, 30-31).
- (9) Name of the manumittor with *ἀπό* or *ὑπό* (ll. 2, 7, 11, 13, 18, 24, 31-32).
- (10) *Ἔδωκε στατήρας δεκαπέντε*, or similar words (ll. 3-4, 8-9, 11-12, 13-14, 18-19, 25-26, 32-34).

Let us take these points in order as presented in our inscription:

(1-2) In l. 15, *Καλλίστρατος* is probably to be distinguished from the man of the same name who held office in the time of Augustus,³ since, as we shall see, the present bearer of the name seems to belong to an earlier date. In l. 20, *Ἀνδροσθένης* is perhaps the same as the Androsthenes who is mentioned by Caesar⁴ as *praetor Thessaliae* at the time of the battle of Pharsalus: his father's name was probably Androgenes, though the restoration is not quite certain. If we accept this identification we must postulate two praetors of the name of Callistratus, as it is impossible to make the date of the inscriptions alluded to above fit into the chronology of the middle of the century, to which our present stone apparently belongs. The other *στρατηγοί* mentioned on our stone are not found in the later inscriptions, and

1. *La Manomissione e la Condizione dei Liberti in Grecia*, Milan, 1908.

2. *De manumissionum titulis apud Thessalos*. *Diss. phil. Hall.* xviii (1908), pp. 65-131. I regret that I have been unable to consult this work during the preparation of the present article.

3. *I.G.* ix 2, 1282, 1344.

4. *Bell. civ.* III, 80.

further the name of the third *στρατηγός*, *Γοργίας Φιλίσκου*, points to the earlier date as the correct one. For he is in all probability brother of *Ἰταλός Φιλίσκου* whose tenure of the post of *στρατηγός* is both recorded on coins¹ and mentioned in two inscriptions.² Both men were citizens of Gyrton, and it is noteworthy that Italus is dated in the list in the *Corpus* to approximately the same age as Androstheneis, and therefore we should expect his brother Gorgias to belong to the same period. But how the present inscription is related chronologically to those which mention the *στρατηγία* of Italus must remain uncertain.

(3-4.) None of the *ταμίαι* are known elsewhere. It need not surprise us that in l. 16, if the proposed restoration is correct, the name of the father of the *ταμίας* is omitted, whereas in ll. 22 and 29 it is inserted.

(5) The aorist participle *ἐξ* (or *ἀπ*-)*ελευθερωθέντες* is not unusual, and can be paralleled in many parts of Thessaly, though the perfect participle *ἐξηλευθερωμένοι* is perhaps more frequent. We may note that in ll. 22-23 the plural is used, though only one name follows under this heading.

(6) Of the names of the months we do not learn much from this inscription. In the record of the first year, from which the name of the *στρατηγός* is unfortunately missing, we have mention of the three months *Πά[ν]ημος*, *Ἀφριος*, and *Ὀμολόϊος*. In that of the second year we have only *Ἀγριώνιος* (if this is correctly restored); in the third year we have only *Ἀπολλώνιος*, and in the fourth only *Ἀφριος*. Now the month *Ἀγριώνιος* is not one of the twelve in the calendar of Thessaly proper,³ but is peculiar to that of Melitaea. The other four names of months occur in the Thessalian calendar, but *Ἀπολλώνιος* and *Πάνημος* are hitherto unknown in the calendar of Melitaea, of which the list of the months is incomplete. It is therefore a legitimate inference that this inscription is dated by the Melitaeian calendar, to which we must now add the months *Ἀπολλώνιος* and *Πάνημος*. The exact order of their succession is far from certain, as we can only gather from our present inscription that *Πάνημος* preceded *Ἀφριος*, and

1. *B.M.C., Thessaly to Aetolia*, p. 2, Nos. 10, 11.

2. *I.G.* ix 2, 12, 109.

3. *I.G.* ix 2, index VI, 4.

Ἄφριος Ὁμολόιος, as in the Thessalian calendar, where they were the second, eighth, and tenth months respectively. The site where this stone was found is so close to Melitaea that it might very well have used the Melitaeian calendar, though, it must be noted, Thaumakoi (Dhomoko), which is no further away than Melitaea, had an entirely different calendar.¹

(7) There is no need to dwell on the names of the manumitted slaves, all of which, except Αἰνησαγόρας (l. 17), Ἀρμενος (l. 30), and Ἀρχιβουλος (l. 31), are known already in Thessaly. The name in l. 12 may either be restored as Ἐλευθέριον, a woman's name, or Ἐλευθερίων, a man's name. Αἰνησαγόρας is formed on the analogy of such names as Αἰνησάρετος, Αἰνησίδημος,² etc. Ἀρμενος occurs at Aegcsthena.³

(8) With regard to the name in the genitive which follows that of the *libertus*, it is sufficient to point out that Calderini⁴ is of the opinion that in this group of manumission-documents the name is that of the προστάτης, not of the father of the *libertus*. But it must be observed that the inscription which he quotes as furnishing proof of the correctness of his view is restored in the *Corpus*⁵ in a quite different manner from that given by himself, and indeed his copy does not even indicate that any single letter on the stone is uncertain, much less missing. But though this can no longer be used to support his view, it does not furnish any argument in favour of the opposite one.

(9) With regard to the names of the *manumissores* we may note the following points. L. 11, [Δαμοξ]ένου is restored from *I.G.* ix 2, 113, where Δ[α]μό[ξε]νος Σωτέλου, which should perhaps be Σωτέλους, is honoured by the city of Halos. It is not unreasonable to identify these two persons, for the manumission of a slave by a man of Halos might quite well have been recorded on a stone set up in another place less than one day's journey distant. L. 13, -οδάμου τοῦ Πυρράνδρου is presumably the same as -δήμου τοῦ Πυρράνδρου in

1. *Ibid.*

2. BECHTEL-FICK, *Die gr. Personennamen*, p. 48.

3. *G.D.I.* III, 3100, l. 9.

4. *La Manomissione*, pp. 195 foll.

5. *I.G.* ix 2, 1232 (= *LE BAS* II, 1295). Calderini's work appeared prior to the publication of this volume of the *Corpus*.

l. 32, and I am tempted to restore [Φιλ]οδάμου and [Φιλο]δήμου in these two lines as we find that the *προστάτης* of Ἄρμενος in l. 30 was called Φιλο-, and the rest of the name, which is illegible, may well have been -δήμου. This restoration is rendered more probable by the fact that we have numerous instances of the *προστάτης* having the same name as, (and being presumably identical with,) the father of the *manumissor*.¹ In l. 18 the first name is uncertain. It is just possible that no letters are lost between the I and the T, as the letters on this stone are often spaced unevenly, and that by reading P for T we should restore the Thessalian name Παναί(ρ)ου; but if, as indicated in the copy, two letters are missing, Πανα[νέ]του, which I adopt, seems the most likely restoration: Πανα(ρ)[ίς]του or Πανα[τ](ί)ου would also be possible.

(10) The sum of money paid on these occasions in this inscription is fifteen staters.² In ll. 18-19 there hardly seems room for the insertion of the sum, but the surface is badly damaged here, and certainty is impossible. The last words of this paragraph appear, as I noted above, to have been [κα](τ)ὰ (τὸ)ν νόμον. In ll. 4 and 8, ἀργυρίου is inserted before στατήρας, and in l. 8 [ί]ερόν τῇ πόλει is likewise added to specify the exact nature of the payment. Perhaps τῇ πόλει should be inserted in ll. 3-4 after ἔδωκεν and before [ἀργυ]ρίου: there seems hardly room for ἱερόν as well.

Finally, as to the date of the inscription. If I am right in identifying Androstenes in l. 20 with the *praetor Thessaliae* of 49/8 B.C., this stone records the manumissions of four or more years ending, perhaps, with 48/7. How many years it covered when complete we cannot say. In the first year the manumissions numbered 5(+), in the second only one, in the third only one, and in the fourth 2(+). This might well lead us to believe that the city to which this record belonged was not very large, and that, since in two of these four years only one manumission was recorded *per annum*, possibly some years passed in which none were recorded as having taken place. This would mean that our inscription may perhaps relate to a longer period than four years, and therefore that the *στρατηγοί* mentioned here may not have held office in successive years. For this reason

1. Cf. CALDERINI, *op. cit.*, pp. 195, 196.

2. The usual amount in Thessaly before the Imperial Age: for exceptions see Calderini, *op. cit.*, p. 139.

we are justified in not attempting to re-arrange the chronology of the *στρατηγοί* of this period on the evidence of the present inscription alone, though the relative order of the three mentioned here is an interesting addition to the material for such an enquiry.

5. A DEDICATION TO ZEUS THAULIOS.

At *Koklóbasi* (2 hours to S. of Orman Maghoula station on the Volo-Pharsala railway). On a block of blue limestone, measuring .31 m. × .56 m. × .51 m. Letters .025 m. high.

ΔΙΟΞΘΑΥΑΙΟΥ

Διὸς Θαυλίου.

This is clearly a dedication to *Zeὺς Θαύλιος*. The epithet is known only in a restricted area in Thessaly, two somewhat similar inscriptions having been found recently, one at Barousi, near Pharsala, and the other at Pherae (Velesino), by Dr. A. S. Arvanitopoulos,¹ who would connect this title with the festival *Θαύλια* of which Hesychius makes mention in the following words: *έορτή [Ταραντῖνοι] άχθείσα ύπό Κτεάτου · παρ' ό και Θαυλίζειν λέγειν τους Δωριείς*. The relation of this festival to Zeus is still a mystery.

6. A DEDICATION TO APOLLO KERDOIOS.

At *Vlachogiánni* (1 hour from the ancient Cyretiae, and *ca.* 5 hours to W. of Tyrnavo). Found built into an oven. Statue-base of greyish marble, measuring .18 m. × .32 m. × .60 m. Letters .02 m. high. Letter-forms: Α Ε Θ Σ

Ἀπλουνι Κερδ <ι> οίου Πολίτα[ς Σ]ουστράτειος
Δίκαι[ο]ν ΠΙΕΜΟΑΛΕΙΟΝ τὸν ἑαυτοῦ πρόγονον
[κα]ὶ Πτ[ολ]έμα Ἀγαθουνεία τὸν ἑαυτᾶς παῖδα.

Dedications to Ἀπόλλων Κερδοῖος are not rare in Thessaly, this title being found in five different Thessalian inscriptions,² as well as in one from the temple of Apollo Ptoos in Boeotia.³ The *iota* after the *delta* is perhaps a mistake in the copy: if not, it gives us a

1. *Πρακτικὰ τῆς Ἀρχαιολογικῆς Ἑταιρείας*, 1907, pp. 151, 152. See also the publication of this inscription by F. Hiller von Gaertringen in *Hermes* XLVI, p. 154 ff.

2. *I.G.* ix 2, 512, 517, 521, 637, 1234: the first four were found at Larissa, the fifth at Phalanna.

3. *B.C.H.* xiv (1890), p. 46, No. 12.

hitherto unknown form of the name. The restoration of the other two words of l. 1 offers no difficulty, Πολίτας being a common Thessalian name, and Σουστράτειος a Thessalian form of the patronymic adjective from Σώστρατος.

In l. 2 the second word is puzzling. It presumably conceals the father's name in a similar patronymic adjective. We should perhaps restore this as ΠΙΕΤΘΑΛΕΙΟΝ (as in *I.G.* ix 2, 517, l. 55) or ΞΕΝΟΛΑΕΙΟΝ, which occurs at Phalanna (*I.G.* ix 2, 1233). The former is preferable as involving fewer alterations. In l. 3 I restore with some hesitation [κα]ὶ Πιτ[ολ]έμα as there is no certain example of this name. We may, however, compare Πολέμα which occurs once at Megiste (Castel Orizo), though this may be incomplete and should perhaps be [Εὐ]πολέμα.¹ But there is no room for these two letters in the present passage, and it is hard to see what else could have stood here. Ἀγαθουνεία is the patronymic adjective from Ἀγάθων.

7. A DEDICATION TO ZEUS PERPHERETES.

At *Mikro-Keserli* (the ancient Mopsium (?): cf. *I.G.* ix 2, 1056-1073.) In a house. Gable-topped stela, measuring .42 m. × .52 m. × .07 m. Letters .02 m. high. Letter-forms: ΑΔΕΛΜΠΣΦ.

Διὶ Περφερέτᾳ [Ἀ]ντιμ-
[ή]δης Παρ[μ]ενίσκου
ἀρχιφρου[ρ]ήσας καὶ οἱ
σύνφρου[ρ]οι στρατηγ-
5 οὔντος Καλλιστρά-
του.

For a similar, but much defaced, dedication from the same site see *I.G.* ix 2, 1057, of which we may now restore ll. 3-5 in the following way: Ἀρχ[ίφρ]ου[ρ]ο[ς καὶ οἱ σ] | ὑν[φρ]ου[ρ]οι στρατηγοῦ | ν(τ)ος - -. The first word was correctly conjectured by von Hiller (*I.G. loc. cit.* note): for ΝΙΟΣ in l. 5 we must clearly read ΝΤΟΣ.

It is noteworthy that the epithet of Zeus is spelt here with Π at the beginning, whereas the other inscription has Φ, and this might suggest that Περφερέτᾳ = ὑπερφερέτᾳ, a word coined apparently by Dionysius of Halicarnassus² as a possible explanation of the Latin

1. *C.I.G.* iii *add.*, 4301 a; PAPE-BENSELER, *Wörterbuch der gr. Eigennamen*, s.v. Πολέμα. [Τρ]ιπτ[ολ]έμα is also possible, if we dispense with καὶ.

2. II, 34 *ad fin.* Ὑπερφερέτης . . . ὅτι πάντων ὑπερέχει, κ.τ.λ.

word *Feretrius*, a title of Jupiter. But it is more reasonable to suppose that *Περφερέτας* or *Φερφερέτας* is an old cult-name of which the origin is a mystery, though, as von Hiller points out (*loc. cit.*), it may very likely be connected with the word *Περφερέες*, which was the name of the men who escorted the Hyperborean maidens to Delos¹. That it is also connected with *Feretrius* is possible, but not in the way suggested by Dionysius.

For the organization of the *φρουροί* mentioned here we have only the evidence furnished by these inscriptions; from *I.G.* ix 2, 1057, we gather that they consisted of an *ἀρχιφρουρος* and twelve *σύνφρουροι*. Their duty perhaps was to guard the road through Tempe, and they seem to have been in existence as early as the third century B.C.²

In ll. 1, 2 [Ἀ]ντιμ[ή]δης seems the only restoration, but it is not a common name.³ *Παρμενίσκος* is common in Thessaly. The name of the *στρατηγός* in ll. 5, 6 is not new, but his date is uncertain. He may perhaps be the man of this name who is *στρατηγός* in No. 4 of the inscriptions in this paper, and held office in or shortly before 50/49 B.C.; or he may be the *στρατηγός* who belongs to the Augustan age (*I.G.* ix 2, 1282, 1344). That the latter should be identified with the man in No. 4 is improbable, as I pointed out above. The lettering points to the later date as the more likely. For the reduplicated *sigma* we have other instances in the spelling of the same name (*I.G.* ix 2, 234).

8. A DEDICATION TO ASKLEPIOS.

At *Mikro-Keserli*, in the Turkish cemetery. Stela of bluish marble, measuring 1.45 m. × .60 m. × .17 m. Letters .02 m. high.

Typical lettering of the 1st century B.C. or A.D.

[Ἀ]σκληπιοῦ Φιλάμβροτος

[Ἰφ]ικρατίδαιος λειτορεύσας.

The copy marks only one letter as lost at the beginning of l. 2, but this does not suggest a possible name, and I venture to supply Ἰφ as the smallest number of letters which could have stood here.⁴ For inscriptions containing the word *λειτορεύω*, or some part of it, see *I.G.* ix 2, 397, 599, 1035, 1228, 1229, (and the following No.).

1. Herodotus IV, 33. Cf. Maean's note *ad loc.*

2. *I.G.* ix 2, 1058 *a* is dated by the editor to the early 3rd century B.C.

3. For names ending in -μήδης see the list in BECHTEL-FICK, *Gr. Personennamen*, p. 206. Ἀντιμήδης is the correct restoration of the name of the chief treasurer of Athena at Athens in 431/0 B.C., *I.G.* i, 144.

4. For the name see *G.D.I.* 713 *a*, l. 1, which is restored by Keil [Ἰφ]ικρατίδας.

9. DEDICATION.

At *Mikro-Keserli*, serving as door-step of the school. Blue marble, damaged on left.

Lettering of the 2nd century	- - αίου Σιμίουν
B.C.	- ς λειτορεύουν.

For the name Σιμίουν cf. *I.G.* ix 2, 234, l. 73; Σιμμίουν occurs *ibid.* 517, l. 51. In l. 1 we should perhaps restore [Ἀπλουνος Λεσχ]αίου, to whom *I.G.* ix 2, 1027 is dedicated. [Ἀσκλη]α(π)ιοῦ can hardly have stood here, as there cannot be fewer than ten letters missing, judging by the position of the *sigma* at the end of the patronymic in l. 2, which is three spaces to the left of the *alpha* in l. 1.

10. A TOMB-STONE.

At *Mikro-Keserli*, in the village. Large stela ca. 1.50 m. high, with two busts in relief above.

Παράμονος καὶ Λυκόλλ[α]
 · να τὰ ἐαυτῶν τέκνα
 [Π]αράμονον καὶ Δίκαιον
 [μνείας(?)] χάριν, ἥρως χρηστὲ
 5 [χαῖ]ρε.

The reliefs and lettering are late and of the worst possible style.

The second name in l. 1 seems to be Λυκόλλ[α] (= Latin *Luculla*), but this fails to account for the letters at the beginning of l. 2. We should likewise have expected Λουκούλλα, as in *C.I.G.* ii *add.*, 1999 b, l. 2, but it is hard to see what other name this could be meant for. The other names are common in Thessaly. The letters at the beginning of l. 4 are uncertain, but probably μνείας stood here. The ignorance of the dedicators is probably responsible for the invocation in ll. 4, 5 being in the singular.

11. A DEDICATION TO HERMES.

Now at *Skiti*; but brought from the 'Kastro' of *Polydhendhri* (the ancient *Meliboea*?), which is close to the sea, ca. 4 hours to N.N.W. of *Keramidhi*.¹ Marble base, measuring 1.4 m. × .33 m. ×

1. Lat. 39°40'; Long. 22°54'.

·24 m., with a cutting ·14 m. × ·17 m. on upper surface. Letters ·02 m. high.

Μόνιμος is a known name in Thessaly. This is the first dedication to Hermes which has been found in this neighbourhood.

MONIMOΞ
EPMHI

Μόνιμος
Ἑρμῆι.

12. STAMPED TILE.

At *Skíti*, Mr. Wace was informed that some time previously a tile had been found at the 'Kastro' of *Polydhendhri*, bearing the letters *Δημαία Μελιβοιέων*. The first word should presumably be *Δημοσία*, and this is conclusive evidence for locating Meliboea at this 'Kastro' which seems to have escaped the notice of all previous writers on the topography of Thessaly. This point will be dealt with by Messrs. Wace and Thompson in a proposed essay on the topography of Thessaly. For tiles bearing similar legends see Mr. Wace's articles, *Annual of the British School of Archaeology at Athens*, xii, pp. 344 foll.; xiii, pp. 17 foll.

13. A TOMB-STONE OF A MAN FROM SEPIAS.

At *Keramidhi*, found on a hill opposite the 'Kastro.' Limestone grave-stela, measuring ·80 m. × ·28 m. × ·06. Letters ·03 m. high, on a sunk surface with raised edges. Surface much worn. Letter-forms: AC (in l. 5 C) W.

- - -
- - ἰδῶ
- - σας
[(?)ἐν]Σηπιά-
δι, ἥρως
χρηστὲ
χαῖρε.

5

A line is missing at the beginning, and it is almost useless to attempt a restoration of ll. 1 and 2. In ll. 3-4 we have apparently [ἐν] Σηπιάδι, referring to the town named Σηπιάς, of whose existence

we read in Strabo¹; it stood presumably on the promontory of the same name.² If the last two letters in l. 1 were by chance ΑΠ and not ΔW the first two lines would no doubt contain the word (ἀπ)[οβιω]σας, but I hardly like to make such an alteration.

14. A DEDICATION OF A SHRINE TO ARTEMIS.

At *Ghura* (2½ hours to the E. of *Avaritza*, the site of *MELITAEA*) in the Church of Ἁγίος Παντελήμων on an unbroken block, measuring .70 m. × .30 m. × .20 m. Letters .02 m. high, in typical style of the fourth century B.C. Copied by Mr. Wace on a subsequent journey.

The copy indicates that the right-hand half of line 1 was left blank, and we must therefore suppose the first word to have been Ἀνειού, a name which is hitherto unknown, unless we may suspect the engraver of an error, in which case the first *iota* may have been omitted from the word Α(ῖ)νείου (genitive either of *Αἰνέας* or *Αἰνεῖος*³). In l. 2 the fourth letter from the end is indicated as only faintly legible, but apparently ο. The word *ιερούοντος* is presumably for *ιερούντος* from *ιερόω*, which is simpler than reading *ιερεύοντος* from *ιερεύω*, though the latter word seems also to be occasionally used to mean 'I dedicate,' which is the sense required here, besides its usual meaning of 'I sacrifice.' The purport of the inscription is "Ἀνειος making the dedication, the city erected the σάκος to the Goddess.' It cannot very well be 'in the priesthood of Ἀνειος,' which would be a more simple interpretation, as there is no indication that *ιερόω* is ever used as equivalent to *ιεράομαι* or *ιερατεύω*⁴, to mean, 'I act as a priest.'

Σακόν must be, I think, for *σηκόν* (the use of α for η being common in Thessalian inscriptions⁵), meaning primarily a pen or sheep-fold, and then a sacred enclosure of almost any kind, and it is a common

'	Ανεί -
-	ου ιερούον -
-	τος ἁ πόλ -
-	ις τὸν σα -
-	κὸν τῷ θ -
-	εῶι.

1. IX, 436 [666].

2. A. J. B. WACE, *J.H.S.* xxvi (1906), pp. 145 foll., where other ancient authorities for *Sepias* are cited.

3. Both names are common, cf. PAPE-BENSELER, *Wörterbuch*, s.vv.

4. This is the usual word in Thessalian inscriptions, cf. *I.G.*, ix 2, Index VI, 2.

5. Note that we have ἁ πόλις and τῷ θεῶι in the present inscription.

word in inscriptions¹. Σάκον (= σάκκον) would also be possible in the sense of 'bag' or 'purse,' though the other explanation is far more likely to be correct.


Moreover, the size of the block on which the inscription is engraved suggests that it was actually used in the construction of the shrine in question. To which Goddess the shrine was dedicated we cannot say for certain, but that it was to Artemis, who under various designations was worshipped throughout Thessaly, is not improbable².

The find-spot of the inscription is not very near to an ancient site, Melitaea (*Avaritza*), which is the nearest, being 2 hours' journey distant. It is possible that the stone was brought thence, but perhaps more likely that it was found close at hand, in which case there must be some unidentified ancient town in the neighbourhood.

1. *E.g.*, KAIBEL, *Epigr. Gr.* 731, l. 7; in *C. I. G.* 4264, 4265, it means a grave-monument. For references in inscriptions to the dedication of shrines and other public buildings, see ROUSE, *Greek Votive Offerings*, p. 273.

2. The references to Artemis in Thessalian inscriptions far outnumber those to Athena or Aphrodite, cf. *I.G.*, ix 2, Index, VI, 1.

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